DOCUMENT RESUME

ED 269 403 SP 027 595

TITLE Perspectives on Aging. Exercise and Wellness Programs for Aging Adults. A Conference Held at Brigham Young University (Provo, Utah, August 22, 1983).
PUB DATE 22 Aug 83
NOTE 85p.
PUB TYPE Collected Works - Conference Proceedings (021) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Exercise; Nutrition; *Older Adults; *Physical Fitness; *Well Being

ABSTRACT

Papers presented at a conference on recreation, exercise, and wellness for aging adults included: (1) "Leisure Activity in the 11th Hour or Physical Pursuits of Old Fossils" (Larry L. Neal); (2) "Exercise and Nutrition for the Senior Adult" (Michele Anderson and Jackie A. Smith); and (3) "Senior Wellness Advocacy Network--S.W.A.N.--An Experiment in Education" (David Turner). Appendices present information from a survey of senior citizens regarding mental and physical health, classes dealing with health promotion among older adults, aqua-calisthenics, a paper on "Implementing a Physical Activity Program in a Geriatric Facility" (Carole Jewkes), and health and fitness tips for senior citizens. (CB)

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PERSPECTIVES ON AGING

EXERCISE AND WELLNESS PROGRAMS FOR AGING ADULTS

SP 027 595

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HOSTED AT: BRIGHAM YOUNG UNIVERSITY
22 AUGUST 1983

DIRECTED BY: DR. HOWARD R. GRAY

PERSPECTIVES ON AGING

EXERCISE AND WELLNESS PROGRAMS FOR AGING ADULTS

PROGRAM CONTENT:

DR. LARRY L. NEAL UNIVERSITY OF OREGON	LEISURE ACTIVITY IN THE 11TH HOUR OR PHYSICAL PURSUITS OF OLD FOSSILS
MICHELE ANDERSON, R.D. JACKIE SMITH, M.H.ED. UTAH HEALTH PROMOTION	EXERCISE AND NUTRITION FOR THE SENIOR ADULT
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DR. SONJA GLASSMEYER VISITING PROFESSOR BRIGHAM YOUNG UNIVERSITY	AQUA-CALISETHENICS
CAROL JEWKES, ACTIVITY DIRECTOR COVE POINT GOLDEN LIVING CENTER	IMPLEMENTING A PHYSICAL ACTIVITY PROGRAM IN A GERIATRIC FACILITY
UTAH GOVERNOR'S COUNCIL ON HEALTH AND FITNESS	FIT TIPS

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Leisure Activity in the 11th Hour

or

Physical Pursuits of Old Fossils

By

Larry L. Neal

Preface: A Perspective Through Quotes

The Athenian Dramatist (cira 448-380 B.C.) ARISTOPHANES placed old age in a rather picturesque perspective.

> "The pegs fall out, the tone is gone, and harmony becomes dissonance."

From the early leaders of leisure, I auote L. P. Jacks in his book Education Through Recreation (1932), when asked as a visitor from Europe to give his impressions having visited over 60 cities in this country his third of four impressions was:

> "...as I walked your city streets and studied the faces of your older population, I saw a large amount of what I can only call damaged humanity---older individuals whose appearance clearly denotes that they lived woefully inadequate lives, inadequate physically, to begin with, and with all the mental and moral inadequacies that follow from that." (Emphasis added.)

(Note the priority and primacy given to the role of fitness here.)

Much is made of the negative aspects of physical fitness and health. Izaak Walton in The Complete Angler (1655) places it in a more positive and appreciative prospective. He said:

> "Look to your health, and if you have it, praise God, and value it next to a good conscience; for health is the second blessing that we mortals are capable of, _____ a blessing that money cannot buy."
>
> Part I, Chapter VIII

This can be acknowledged at age 62; 28 years before he died.

At about the same time in history (1700) the English Poet, Dramatist and Critic, wrote to his namesake John Dryden of Chesterton emphasizing the value of exercise over prescriptions. In his artful way he praises exercise and denounces prescriptions:

> "Better to hunt in fields, for health unsought, then fee the doctor for a nauseous draught. The wise, for cure, on exercise depend; God never made his work for man to mend."
>
> -John Dryden (1631-1700)

Mind and body have been separated and brought together by poets, authors, philosophers since time immemorable. A popular parallel was given by Joseph Addison (1709).

> "Reading is to the mind what exercise is to the body."

It has stood the test of time. Also standing the test of time is the need to discipline oneself to exercise and the benefits derived therefrom. It was Plato in his The Republic who struck upon two popular themes: (1) Regimented exercise, but non-directive thinking/learning and (2) The value of simple body movement and musical training (not unlike the Jazzercize of today).

Exercise:

> "Bodily exercise, when compulsory, does not harm the body; But knowledge which is acquired under compulsion obtains no hold on the mind."

Beauty and Musical Training:

> "Beauty of style and harmony and grace and good rhythm depend upon simplicity". "...musical training is a more potent instrument than any other, because rhythm and harmony find their way into inward places of the soul.
>
> Gymnastics as well as music should begin in early years.

Carrying the lasting value and nature of the philosophers of the Golden Era even further with the following quote from PLUTARCH about the Greek Orator and Political Leader DEMOSTHENES (384-322 B.C.).

> "....in his house he had a large looking glass, before which he would stand and go through his exercises..."

It sounds like today relived with exercises before large mirrors until the well known story of Demosthenes who was poor of speech improved this weakness to perfection by practicing talking with pebbles in his mouth. The exercise was different, but the principle the same: Practice, diligence, regularity, perseverance, overcoming weakness, etc.

Leisure Activity in the Eleventh Hour;
or
Physical Puruists of Old Fossils

by Larry L. Neal
Director Institute of Recreation Research & Service (IR'S)

My task is simple. It is to define some basic terms and underscore how personal they are to each of us—therefore, there is, nor should be, no consensus of thought regarding what I say. To begin with, I wish to discuss several terms very near and dear to me, as I've invested my entire working life toward understanding them. They are:

Play Recreation Leisure

For purposes of this Pre-Campus Education Week Class entitled "Exercise and Wellness Programs for Aging Adults, I'd add the terms:

Aging Wellness

but must underscore that these latter terms are not a part of my specialty. What I say about them is gleaned from work with colleagues both here and at the University of Oregon Center of Gerontology.

Let's add to the list of terms. We Latterday Saints (and friends) are deeply committed to and interested in the relationship with our Heavenly Father and His Son, Jesus Christ. As such, we all would be interested in two sets of words:

I	II	
Work	Physical (Anatomical)	(Body)
Play	Mental (Cognitive)	(Mind)
Worship	Spiritual (Psychological/ Sociological)	(Spirit)

Two stories relate to the above lists. My friend, Reverend Gordon Dahl, wrote a book entitled Work, Play and Worship in the early 70's. In it, he depicted what we were and are experiencing —— all of us; but I suspect we members of the Church are not suffering as greatly as the public in general. He depicted a state of "anomie" — a normless state where our roles are confused. Daniel Yankelovich in his new book NEW Rules: Searching for Self-Fulfillment in a World Turned Upside Down, says we are in a major poradign shift where nothing is sacred and nothing universally accepted.

Reverend Gordon Dahl's book title Work, Play and Worship, served to illustrate this best. He depicted American society as:

Worshipping work
Working at play, and
Playing at our worship.

What characterizes fundamental religious communities (LDS for sure) is the characteristic that Mormonism is more than a religions -- it is a way of life. What a compliment. It attacks the age old criticism relating to "playing at our worship", being insincere in our relationship with Jesus, The Christ, or at least, spasmodic in our commitment to Him and His teachings. In preparation for this

presentation at the State University in Oregon, I brought the book by A. Harold Goodman and Max Waters entitled, "We Can Become Perfect", into my office. In the context of striving to know our elder brother and model after Him, we understood that this is an achievable goal — not in this life, but with the eternal perspective and now is the time we must set the course, gain the skills, acquire the knowledge, provide the service and endure to the very end. A colleague upon seeing the title and without knowing the context in which I was reviewing it, thought it markedly presumptious. I'm so very sorry that Rev. Dahl's play on words is so appropriate in depicting contemporary society.

Let's now look at the second list: Mino, Body, Spirit, or Physical, Mental, Spiritual. I'm so indebted to Brother Stephen Covey, a complex man with simple truths, for many good thoughts — none has impressed me nor influenced me more than the three I wish to relate now from his book, "How to Succeed With People."

I. Take Time to Sharpen Your Saw - Here he likens ourselves without committing ourselves to three things, (1) regular physical exercise, (2) smart planning and (3) regular meditation, scripture study and prayer. Note he put regular physical exercise first — there may be great inspiration and truth to the primacy of such a list.

II. Be Strong in Hard Moments - Drawing from missionary training and current teaching, he says, "...missionary life symbolizes mastery over the flesh. Mind over mattress...developing power reserves by taking the initiative and courage to contact new people." There is valuable counsel to all of us—even though we are not on missions. The application can be directed towar-d the physical strengthening of ourselves too.

III. Work on the Roots - In simple sentences we are admonished to focus on the real nature of our problems. Quoting from Brother Covey:

"To make things work, we must understand and work with, not against, the nature of things..."

"The vital question, therefore is: What is the nature of things regarding man and his relationships?"

"Our answers come from basically two sources: man's discoveries and God's revelations. If these two ever seem to conflict, revelations must take precedence.

"The following basic realities about man have been revealed and have profound, far-reaching consequences in our discussions of human relations.

1. Man is an immortal spirit, clothed in a physical body.
2. His growth and development are governed by spiritual and moral laws.
3. Through disobedience to those laws, man becomes insecure and alienated...
4. By obedience to the laws and ordinances of the gospel, man becomes secure and unified..."

Brother Covey (and I concur) that (1) the real nature of most of our problems if spiritual, that is, "....the roots of our problems lie in our disobeying natural laws - - - knowingly or unknowingly," and (2) The basic solution to our problems lies within ourselves." "It's futile to fight our battles on the wrong battlefields", or as Thoreau observed:

"For every thousand knocking at the leaves
of evil, there is one striking at the root."

Before I define Play, Recreation and Leisure, let me observe with confidence that I've reviewed the guidance given to Church members from worthy Brethren holding the mantel of leadership from Prophets through Bishops, from Joseph Smith to Spencer W. Kimball. My observation is that no so much through scientific investigation and discovery - - - but <u>through the route of revelation</u> mentioned by Stephen Covey above, the Church authorities have been inspired to direct us toward worthy use of leisure through diverse physical, social, cultural pursuits. This is not the subject of this class, but it is a much broader subject and includes the concerns we'll be discussing throughout this day.

In short, know that the inspired program of this Church since its restoration has been characteristically different from "main line" religion in its commitment to using diverse leisure pursuits to strengthen us, uplift us, exhault us. This has all been done under the guidance, instruction and modeling of our Church Presidency and ultimately through revelation from our Heavenly Father.

Let's define our terms:

As a basis for the history of recreation and leisure in the Church, let's look first at some basic definitions. Many leisure educators have wrestled with the relationship between the words:

Play, Recreation, Leisure

I prefer to look at them in a sequential or hierarchial order. Joseph Lee, noted as the Father of the American Playground, is credited with tying the first two concepts together. He suggested that play is the recreation of youth or inversely, recreation is the play of adults. Both these terms suggest activity—the experential and learning process. Some have suggested this to be the socialization or aculturalization process. If play and recreation suggest activity, the word leisure suggests two popular concepts: time and attitude. Figure 1 shows working definitions of the terms recreation and leisure to aid in clarifying their meaning. Current leisure educators tend to favor clarification of <u>recreation</u> as an <u>activity</u> with the qualifiers listed in the grid shown and leisure more generally as a <u>state of mind</u> — <u>an attitude</u>. You'll note, however, that the working definition of recreation includes leisure as a period of time. Confusion can result in these two words: recreation and leisure because they each are more often expressed to mean two different things:

Recreation: An activity
A medium of socialization/actualization

Leisure: A period of time
A state of being; An attitude

When defining recreation and leisure as activities, attitudes or a medium of growth, these things are hard to quantify and are exceedingly diverse. Hence, many views are established in individuals' minds. However, it is easier to establish a clearer picture of that quantifiable variable called time. An easy way of perceiving time is in the form of a life block. It actually is a grid with the horizontal axis representing years in life from birth til death and the vertical axis representing the hours in each day. The area within the rectangle then represents all the time in one's life and the various stages for three basic strands that go with us pretty much throughout life: sustenance, work, discretionary time. Note that there is a large amoutn of time we have at our discretion. This is the time in the block which we have by definition greater control over, the time which shapes us uniquely, the time we choose to engage in church activities out of sense of interest or commitment. This is also the time where we have the greatest control and can commit ourselves to "absolutely nothing" or a myriad of activities.

It is essential at this point to underscore a truth. The words and concepts expressed above—especially play, recreation, and leisure are not negative or positive in and of themselves. It is the <u>type</u> of play and <u>methods</u> of recreation, or the <u>attitude</u> toward leisure which make that time spent or activity pursued either positive or negative.

In addition, some observations of aging, and wellness should be addressed. Let us acknowledge that just as inevitable as death follows birth - - aging is the process which brings this about. It's natural, accepted, markedly variable in the lives of God's children. We can deter, but we cannot re-direct the aging process. The most exciting area of aging for me personally is not the dimension of physical exercise for prolonged life, but the effects of maintained physical exercise in later years for the <u>many</u> concommitant benefits derived from such activity. They include, but are not limited to:

Greater mental health regarding self-help, self-reliance, well being.
Greater ability of body to assimilate prescribed drugs.
Greater cardio-vascular capacity.) "..where balance is challenged,
Greater circulatory balance (or less blockage) } balance is improved..."
Greater mental/emotional benefits. -Wollocott, 1983
Greater sense of spotial propriety-
Greater ability to unconsciously maintain the range of motion.

These and many other timely hints to exercise and wellness are presented in an excellent program packet as an outgrowth of <u>The Turnaround SM Workshop</u>, sponsored by the Campbell Soup Company. If you wish a complete packet related to new directions in eating and exercise write to Turnaround Workshop, PO Box 8688, Clinton, Iowa, 52736, and enclose $3.00. Offer expires December 30, 1983. Allow 8 weeks for handling.

Dr. Jeanne Bader, Director of the University of Oregon's Center of Gerontology, provided several salient observations about seniors, the aging process and the popular wellness concept. First know that we are all God's children. We are all unique in many ways. We are at various stages of spiritual, mental and physical development. Adding to the complexity of our topic is the dual concept of speed and capacity. Each of us has strengths and weaknesses (e.g., the ability to ward off disease and if contracted, to fall somewhere on the following continum: "eliminate - hold in remission - succumb continum."

Correspondingly each of us has varied capacities (e.g. strength in various body parts, lung capacity, tolerance to pain). Within the great diversity of God-given capacity/ability, we are charged to use our free agency to maintain our bodies

as temples -- which they are since they are a product of God and freely given to this early estate.

Speaking in the broad eternal perspective Brothers Goodman and Waters (We Can Become Perfect, Press Publishing, 1974, p. 3-5) ask the question "Doesn't it seem at times that you are almost two people?" They commence to relate the well known dualism between spiritual/material; between right/wrong; between beneficial/harmful, etc. They continue, "...at such times, it seems that the body and spirit cannot get together. Usually the spirit is willing,...but the body doesn't meausre up." "...of all the creations, only man has turned his ear from and is disobedient to the commandments of his Creator... In spite of these inherent weaknesses in mortality, we should keep clearly in mind the great potential for good that is in each person. Brigham Young (Journal of Discourses 2:225+) taught that the devil does not have rule over both the body and the spirit." Brigham Young speaking of the devil said, "I want to tell you that he does not hold any power over man, only so far as the body overcomes the spirit that is in man through yielding of the spirit to evil...The spirit is pure, and under the special control and infeluence of the Lord, but the body is of the earth, and is subject to the power of the devil, and is under the mighty influence of that fallen nature that is of the earth. If the spirit yields to the body, the devil then has power to overcome both the body and spirit of that man, and he loses both...when you are full (of the devil) and wish to yield to it, then stop and let the spirit, which God has put into your tabernacle, take the lead. If you do that, I will promise you will overcome all evil, and obtain eternal lives."

Oregon Gerontologist Bader offers several very specific cautions as we proceed throughout this day:

Identifying additional benefits to exercise
Dispelling other myths
Anticipating other barriers to exercise
Identifying motivational techniques
Exploring the Church Fitness Program, and
Getting started with a specific program.

1. There is a heirarchy of concern as she sees it. Exercise and concern for physical strengthening to the capacity of each senior provides a storehouse of physical strength to fight the aging process -- but the highest benefits as she sees it are:

   A. The opportunity for Self Help - Exercise/Fitness/Wellness are at the bottom line - individual. One must commit ones self to it!

   B. Self Reliance - No matter what the physical condition, small activities (at the very least) can be identified which can be accomplished and in the accomplishment, the person can be reinforced for the effort and the results.

   C. Well-Being - Accomplishment is a reinforcer. To accomplish tasks which are both felt and physically beneficial can add greatly to the psycho/social dimension of one's being.

2. The great interest in gerontological circles today is directed toward NUTRITION and EXERCISE. They are seen as:

   A. Low or no-cost alternatives to medication.
   B. Valuable to both quality and quantity aspects of seniors' lives.
   C. Are inter-related; illustration the need for exercise for especially older women who suffer from thinning of the bones (Osteo-Porosis) in which the taking of calcium without exercise is detrimental since the calcium is distributed in the wrong places.
   D. The admonition is: (1) No Smoking
      (2) Controlled* Exercise (with frequent pulse taking) and
      (3) Watch What You Eat!
   E. The pill intake is of great concern to those studying aging. Facts: Average of 7 prescription drugs for seniors at home while there is an average of 15 prescription drugs for those in nursing homes. Often the drugs taken are prescribed by different doctors over time and have counter-active effects.

*Two recent books my physican brother would quickly recommend for older patients because it is consistent with his commitment to prescribe walking as a specific exercise intervention are: Rowen, Lilian and D. S. Laiken. Speed Walking: The Exercise Alternative. New York: G. P. Purnam's Sons, 1980, pp. 144.
Mitchell, E. V., The Pleasures of Walking, New York: Yanguard Press, 1979, pp. 172.

3. The concept of the least restrictive environment, made popular by PL 94-142 legislation nearly a decade ago is popular with the seniors of today. It builds upon the principles of individual's rights and freedom to gain access. Such design concerns of grade, slope, curb cuts, heights of commodities for people with restricted range of motion, etc., are all related to this issue.

4. Last, but not least, is the concern for safety. These items and many others will be central concerns during the Olympic Scientific Congress to be held July 19-26 at the University of Oregon just prior to the Olympic games in Los Angeles. One of the special interdisciplinary sessions drawing specialists from throughout the world is Sport and Aging. The ultimate in training, conditioning and competition will provide goals for the more general public. Proceeding from this congress will be available.

Conclusion

This presentation has been a blending of spiritual challenges and opportunities on the positive side and harsh contemporary society reality on the more negative side. The programs of the church which emphasize individual worth and placing our spiritual priorities equal to if not ahead of physical concerns allows for the opportunity for us to experience EXTENDED JOY as we end our stay on earth. This can only be done if we recognize the challenge of growing old physically, commit ourselves to a plan of physical exercise and good nutrition and then proceed to DO IT! The outcomes suggested here and to be elaborated upon throughout this day will be the benefits!

It was Ralph Waldo Emerson who said of old age, it's a good advertisement of ones self. Let it advertise the "good" of our efforts is my prayer.

EXERCISE AND NUTRITION FOR THE SENIOR ADULT

Michele Anderson

Jackie A. Smith

Michele Anderson, B.S., R.D., is a registered member of the American Dietetic Association and a consulting nutritionist in private practice in Salt Lake City. As a consultant, Ms. Anderson instructs physician-referred patients regarding therapeutic diets, teaches Food Science and Nutrition 115 at the Brigham Young University Salt Lake Center, developed and instructs the weight control program for the Wellness Center at Holy Cross Hospital, and serves as a consultant for three large nursing homes in Salt Lake City. She is a consultant for the Utah Rural Diabetes Program, Utah Department of Health, and the Nutrition and Cancer Epidemiology Study, University of Utah Medical Center.

Jackie A. Smith, M.H.Ed., is currently employed as a Community Health Education Coordinator with the Bureau of Health Promotion and Risk Reduction, Community Health Services Division, Utah Department of Health. Ms. Smith is a member and former executive director of the Utah Governor's Council on Health and Fitness. She is currently a doctoral candidate in health education and communication/marketing at the University of Utah.

The United States is rapidly becoming a population of older people. Population trends indicate that there are well over 23 million senior citizens and that the absolute number and proportion of older citizens is increasing rapidly (deVries, 1980; Whiddon & Gilkison, 1978).

For many Americans the retirement years are a time to slow down and give in to the natural processes of aging. For others the senior years are a time of enjoyment and fulfillment. While aging is inescapable, the process by which one "grows older" is not. Whether a person simply slows down and gives in to the aging process or experiences fulfillment is largely dependent on his or her lifestyle. Two factors which contribute to a healthy lifestyle are exercise and proper nutrition.

While evidence is mounting on the benefits of exercise and adequate nutrition in slowing down and lessening the effects of aging (adding years to life), one thing remains certain: regular exercise and proper nutrition significantly affect the "quality of life" of senior adults.

Physiological Aspects of Aging

There are a variety of physiologic changes accompanying the aging process. These changes are the result of at least three major factors (deVries, 1980). The first factor is the true aging process. This process is unavoidable and unalterable. The second factor is unrecognized disease processes which increase in incidence and severity with age. The third factor (which offers potential for

modification) is disuse and misuse. The aging process which results from disuse and misuse can be modified by altering sedentary lifestyles and improving the nutritional adequacy of the diet.

The most noticeable changes accompanying the aging process are decreases in muscular strength, changes in the cardiovascular system, decreased pulmonary function, physical working capacity decline, slowing of reaction time, changes in body composition and changes in stature, bone composition and joint mobility (deVries, 1980).

Muscular Strength

Strength has been shown to gradually decrease with age. Montoye and Lamphiear (1977) reported that while women's muscular strength loses are somewhat greater than men, at age 60 the total loss does not usually exceed 10 to 20 percent of maximum. The greatest rate of strength decline usually occurs after age 50.

Cardiovascular System Changes

Maximal heart rate, cardiac output and coronary artery changes have all been studied as functions which change as a result of the aging process. Clarke (1977) indicated that while resting heart rate changes little during adult life, maximal heart rate for older adults decreases regularly. Brandfonbrener, Landowne, and Shock (1955) reported at rest cardiac output declines of approximately one percent every year after maturity. Granath, Jonsson, and Strandell (1970) studied stroke volume and found stroke volume to be con-

sistently lower in older men.

Simonson (1957) reported that in normal hearts the cross sectional area of lumen in coronary arteries is reduced in older persons. DeVries (1980), on the other hand, reported two to three times normal size coronary arteries in a 70 year old long distance runner who died of cancer.

Pulmonary Function

DeVries (1974, 1980) reviewed the research of several investigators related to breathing efficiency and concluded that vital capacity decreases with age. While lung compliance (elastic force required per unit stretch of the thorax) increases with age, thoracic wall compliance decreases. The older individual may do up to 20 percent more elastic work at a given level of ventilation than a young person. This additional work primarily involves moving the chest wall. DeVries also concluded that the capacity for pulmonary diffusion is significantly decreased as part of the aging process. There is also a need for greater ventilation in older individuals at any given level of work or oxygen consumption.

Physical Working Capacity

"Maximal oxygen consumption" is the best single measure of physical working capacity. As a person ages there is a steady decline in maximal oxygen consumption. This decline may be the result of functional degeneration in lung ventilation, lung diffusion capacity of oxygen, heart rate, stroke volume and oxygen utilization by the tissues (deVries, 1980).

The Nervous System

A slowing of reaction time and speed of movement accompany the aging process. Decreases in conduction time in the central nervous system may be responsible for part of the slowing changes seen with aging but do not account for the total problem (Birren, Butler, Greenhouse, Sokoloff, & Yarrow, 1963; Birren, Imus, & Windle, 1959). Arteriosclerotic changes (frequently accompanying the aging process) may be responsible for circulatory or metabolic changes in cerebral function. Aging per se may not be responsible for these changes in cerebral functions (Birren, et al., 1959, 1963).

Body Composition

Cellular aging takes place when active tissue (muscle) is replaced by less active tissue (fat and connective tissue). It appears that basal metabolic activity decreases approximately 25 percent from youth to old age (Clarke, 1977). Brozek (1952) reported that it is typical for aging humans to increase their weight. However, this weight gain represents an average of 27 pounds of fat while fat-free body weight actually decreases. In order to maintain a constant low percentage of body fat as one ages, weight should not merely be maintained but decreased.

Stature, Bones and Joints

As part of the aging process one grows shorter as one grows older and fatter (deVries, 1980). The loss rate averages about one-half inch per decade after age 30 (DeQueker,

Baeyens, & Claesens, 1969).

As one ages bones become less resilient, more brittle and porous and increasingly fragile (Clarke, 1977). Another serious problem (especially for older women) is the loss of bony tissue (deVries, 1980). This loss is referred to as osteoporosis.

The President's Council on Physical Fitness and Sports indicated that another problem associated with the aging process is loss of joint mobility. Often muscles lose their elasticity and tissues around joints thicken. The results of these changes are often poor posture and loss of range of motion (Pep Up Your Life).

The President's Council also reported that much of the physical frailty attributed to the aging process is actually the result of muscular disuse and poor diet. As such, many problems could be halted or reversed through proper eating habits and regular exercise programs to improve cardiovascular endurance, muscular strength and flexibility (Pep Up Your Life).

Exercise for Senior Adults

In the United States only 39 percent of adults over age 60 engage in regular exercise. Unfortunately, 70 pecent believe they receive all the exercise they need (Clarke, 1977).

There are a variety of reasons why senior adults fail to exercise including: (1) little training in physical education, (2) lack of information on the value of exercise and the benefits to be derived, (3) belief that as one gets

older his or her need for exercise diminishes, (4) overrated ideas of the benefits of light, sporadic exercise, (5) fear of harm and bodily damage from involvement in vigorous activity, and (6) lack of confidence in one's capacity to exercise (Whiddon & Gilkison, 1978).

Age is not a deterrent to starting or continuing an exercise program (Pollock, 1978). It is recommended, however, that older adults who are just starting out begin their exercise program at a low-intensity and progress at a slower rate (Pollock, 1978).

Psychological Benefits

There is increasing evidence in the literature that exercise improves one's psychological well-being (Harris, 1979). De Vries and Adams (1972) conducted a study on the tranquilizer effects of exercise and found that exercise has a significant tranquilizer effect for anxious elderly patients equal or greater than the effects of tranquilizing medications.

Harris (1979) stated that regular exercise is associated with feeling better. "When one feels better, one behaves in a more positive manner; how one feels about one's body has much to do with how one feels about oneself" (Harris, 1979, p. 33).

Whiddon and Gilkison (1978) indicated that activity programs for older adults create new challenging interests, goals, skills, and increase independent living. Exercise is an antidepressant that helps older adults keep in touch with reality by creating a more desirable real world.

Flexibility

Exercises which improve flexibility are critical for the older adult. As one ages muscles lose their elasticity and joints stiffen. Reduced flexibility can lead to poor posture, fatigue and injury (Pollack, 1978). Stretching exercises can delay this process by maintaining range of motion and preventing muscles from becoming short and tight.

In a book entitled An Exercise Program for the Older Canadian (1980), Canadian officials stated the flexibility exercises benefit the older adult by: firming muscles and improving posture, reducing the strain often caused by daily activities, and providing needed flexibility from sport and recreational activities.

Muscular Strength

Just as flexibility exercises are an important component of the senior adult's exercise routine so are muscular strength exercises. Without exercise muscles become soft, flabby and lose their tone (Pep Up Your Life).

While Montoye and Lamphiear (1977) reported strength decreases particularly after the fifth decade of life, de Vries, (1980) suggested that small strength loses with age are largely due to disuse rather than the true aging process.

The President's Council on Physical Fitness and Sports recommended that senior adults have a program of calisthenics to work muscles against resistance in order to condition muscles and maintain their tone (Pep Up Your Life).

Cardiovascular Endurance

The role of exercise in combating cardiovascular disease is somewhat controversial. Wilmore (1980) summarized the current literature and concluded: (1) Physical inactivity has been listed as a risk factor for the development of coronary artery disease. (2) A cause and effect relationship cannot be absolutely demonstrated between physical activity and the prevention of coronary artery disease. (3) Physical activity does have a positive effect on other risk factors associated with coronary artery disease such as resting heart rate, body weight, percent body fat, blood serum levels of cholesterol and triglycerides, glucose, and systolic blood pressure.

Exercise prescription. To achieve desired cardiovascular benefits exercises have to be of the correct type and performed at the appropriate frequency, intensity and duration necessary to stimulate cardiovascular endurance (Pollock, 1978; Wilmore, 1980). The following chart summarizes these factors. It should be noted that this exercise prescription is for healthy adults and would vary based on the age and physical condition level of the individual.

Cardiovascular Exercise Prescription

(Pollock, 1978; Wilmore, 1980)

Mode of Exercise	Walking, jogging, running, hiking, swimming, dancing or endurance sport activities.
Exercise Frequency	3 to 5 times per week
Intensity	Between 60 to 80% of individual capacity. Within individual target heart rate zone.

Duration	20 to 30 minutes continuous
Program Components	Warm up and flexibility exercises, An endurance conditioning period (20 to 30 minutes continuous), and a cooling down period.

Activities which improve cardivascular functioning are referred to as aerobic activities because they are rhythmical, continuous, involve the large muscle groups of the body and demand oxygen for performance. Aerobic exercises along with exercises which increase flexibility, and muscular strength, are part of a total fitness program.

Walking. Clarke (1977) stated that walking is the favorite form of exercise for the senior adult. Walking develops cardiovascular endurance, improves lung functioning, tones legs, burns calories, increases vigor and promotes relaxation (An Exercise Program for the Older Canadian, 1980).

Senior adults should begin their walking session with a warm-up period of easy walking before walking briskly. The heel of the foot should hit the ground first to minimize strain on the joints. Seniors should start with only 10 minutes per session and gradually increase their time to 30 comfortable minutes. After two weeks it may be safe to increase one's pace or try a few hills. It is important to monitor one's pace using target heart rate techniques or the "talk test" (see page 12).

Body Composition

As discussed earlier cellular aging takes place when active tissue (muscle) is replaced by less active tissue (fat

and connective tissue) (Clarke, 1977). In order to maintain a constant lower percentage of body fat as one ages, weight should not only be maintained but decreased.

DeVries (1980) indicated that losses in fat-free weight represents disuse atrophy of muscle tissue and may not be a necessary part of the aging process if vigorous (aerobic) exercise is maintained. Wilmore (1980) recommended that exercise is an essential part of any sound weight reduction and weight control program. When exercise is combined with moderate dieting, lean tissue losses are minimized and fat losses are more likely to be of a permanent nature.

Exercise Guidelines

Is a person ever too old to get started in an exercise program? According to Pollock (1978) age is not a deterrent from participating in an exercise program. Middle aged and older individuals can perform at high levels of work in their sixth, seventh and eighth decades of life. DeVries (1974, 1980) indicated that there is no evidence that vigorous exercise can any way injure a healthy older individual. DeVries (1974) cautioned that the older the individual the lower the initial workload should be and the longer the period of progressive conditioning. Pollock (1978) also stated that the initial intensity workloads should be moderate and that progression should be slower. According to Pollock for every decade of age after 30 it takes about 40 percent longer for participants to progress in their training program.

Medical clearance. At present there is some controversy regarding medical clearance before beginning an exercise

program. DeVries (1974) and Wilmore (1980) specified that any sedentary individual over 30 should be examined and approved by his or her physician before starting any physical conditioning program.

Mason and Smith (1982) described a more lenient criteria, used for the Utah Seniors' Physical Fitness Awards Program, to determine when an older person's physician should be consulted before initiating a program of regular physical activity. Seniors who answer yes to any of the following questions are instructed to receive medical clearance before initiating an exercise program: (1) Has your doctor ever said you have heart trouble? (2) Do you frequently have discomfort in your heart or chest? (3) Do you often feel faint or have severe spells of dizziness? (4) Has a doctor ever said your blood pressure was too high? (5) Has your doctor ever told you that you have a bone or joint problem such as arthritis that has been aggrevated by exercise or might be made worse with exercise? (6) Is there a good physical reason not mentioned here why you should not follow an activity program, even if you wanted to? (7) Are you over age 65 and not accustomed to vigorous exercise?

If seniors answer yes to any question they should consult with their physician before increasing their physical activity. If they answered no to all of the questions, they may be ready for a fitness program. They should remember to start slow and progress gradually, however (Utah Seniors Physical Fitness Awards Program, 1980).

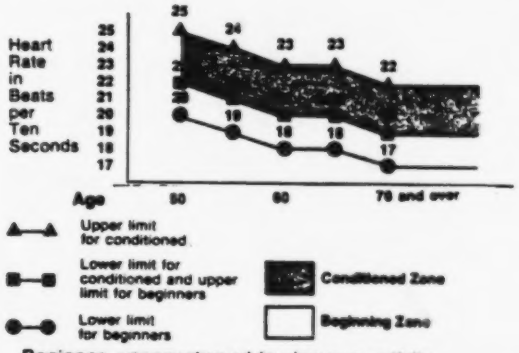
Monitoring. The ideal way to monitor progress for the senior adult is in the laboratory. The individual should be evaluated in depth including oxygen consumption, cardiovascular function, respiratory function, muscular status and anthropometric measurements (deVries, 1974, 1980).

For most seniors laboratory monitoring is not possible. There are two other ways for individuals to monitor the stress imposed on their heart, lungs and blood vessels during exercise. Exercising in one's target heart rate zone (THR) and taking the "talk test" during aerobic exercise are effective monitoring techniques to determine if one is exercising within safe and beneficial limits.

The first step in using target heart rate zone monitoring is to consult the target heart rate zone chart to determine the appropriate pulse count per ten seconds by age and activity of the individual (An Exercise Program for the Older Canadian, 1980).

Target Heart Rate Zone Chart

(Utah Seniors' Physical Fitness Awards Program, 1980).



Beginner: unaccustomed to vigorous activity
Conditioned: active in vigorous activity at least three times a week or after a month of training at the beginner level

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The range determined on the chart per ten seconds is the individual's target heart rate zone. To monitor one's aerobic exercise level the older individual should count his or her pulse for ten seconds upon immediately stopping vigorous activity. If the pulse rate per ten seconds is above the target heart rate zone for the person's age, he or she is pushing too hard and should slow down. When the pulse count falls within the zone, the person is achieving beneficial training effects for improving cardiovascular endurance. Below the lower limit, the intensity is insufficient to improve heart-lung fitness; above the upper limit, there is little added benefit.

Beginners should attempt to maintain a heart rate within the beginner zone for at least one month. Once fitness improves, the person may choose to go to the conditioned level. The conditioned upper limit should be reached only by individuals in very good condition. Beginners should start very slowly and use the talk test to determine if they are pushing too hard in their exercise program. (Utah Seniors' Physical Fitness Awards Program, 1980).

Heart rate monitoring may not be accurate for individuals taking medication for hypertension or heart disease which suppress heart rate. Other problems with the technique are that seniors often find the procedure difficult to understand and many times they have difficulty monitoring their pulse rate.

The simplest way to monitor exercise level is the "talk test." If at any time during exercise the person cannot

talk in a "normal" voice due to increased breathlessness, he or she is pushing too hard and should slow down (An Exercise Program for the Older Canadian, 1980; Utah Seniors' Physical Fitness Awards Program, 1980).

Specific guidelines. Many individuals (regardless of age) often find it difficult to initiate and maintain a program of regular exercise. Exercise is often viewed as painful, boring and low priority (Smith, 1983). In order to gain the benefits of exercise senior adults must first get started, progress gradually, and maintain their exercise program on a regular basis. Below is a list of suggestions to aid the senior adult in becoming motivated, exercising safely, and increasing the pleasure of regular exercise.

1. Exercising can be more fun by using lively music and participating with friends.

2. Senior adults should select appropriate clothing which is loose-fitting and comfortable.

3. Participation should be posponed if the individual has a temporary illness or the weather is extremely hot or cold.

4. It is important that the senior adult begin slowly and progress slowly!

5. Breathing should be deep and even between exercise and during exercise. Individuals should not hold their breath.

6. Exercise behavior is reinforced by keeping a written record of progress.

7. Each exercise session should consist of a warm-up

period, endurance period and cool-down period. Warm-up and cool-down exercises can also be used at other times to increase relaxation.

8. Stretching exercises should be held for 3-10 seconds. It is important not to bounce during stretching exercises to prevent muscle strain and tearing.

9. A chair can be used for support to avoid falls. A chair or wall provides support for bending and balancing.

10. Senior adults should select activities they enjoy. A wide variety of activities and sports can be selected to prevent boredom.

11. Exercising at a regular time of day will help make exercise part of a daily routine.

12. Exercising with a friend, spouse or group will make exercising more enjoyable and help senior adults alleviate some of the feelings of loneliness that accompany the later years.

13. Providing senior adults with educational materials will help them understand the importance of regular exercise. Lectures, seminars and group discussion can be used to generate interest.

14. For those unaccustomed to strenuous physical activity, psychological tolerance for exercise may be reached before physical limits are reached. Psychological barriers include fears such as harm, fatigue, over-extending and inability to perform exercise. Again, it is important to start slowly and progress gradually so mental factors such as fear, anxiety, and boredom can be overcome.

15. Senior adults should be encouraged to have fun. Many older adults view exercise as work or a form of punishment. Special efforts should be made to gradually shift these long-standing atitudes to positive feelings about physical activity.

Nutrition in Senior Adults

Overview of Causes of Nutritional Problems

The elderly seem to have a high incidence of nutrition related problems. Krehl (1974) found the diets of older adults to be so inadequate in vitamins and protein that signs of malnutrition resulted. A number of factors may contribute to malnutrition in the elderly including: (1) most older people have such low incomes that they cannot afford a wide variety of foods, (2) they often eat foods that are inexpensive and will store for a long time, (3) they have limited mobility which keeps them from going to the store for fresh foods and cooking for themselves, (4) they lack education or skills to select proper foods, (5) they often suffer from lineliness which is associated with lack of appetite and depression, (6) they would rather not eat than fix food to eat alone, and (7) many elderly people have lost their teeth or their dentures don't fit properly so they avoid groups of food that provide necessary vitamins and minerals (Tempro, 1978).

Young (1979) identified that even though the nutrients are present in the diet, many physiological changes in aging or disease such as chronic illness, cancer, infection, mal-

absorption and gastrointestinal disorders can inhibit the absorption or availability of the nutrients.

Nutritional Assessment in the Elderly

Measurements of nutritional status for the elderly are based on a variety of data which include total body weight versus height, the percent of lean body mass, the percentage of fat, circumference of muscle, and selected serum studies relating to vitamin intake and biochemical measurements (Love, 1982).

Most of the indices for nutritional status have not been adequately studied in the elderly. Roche (1982) concluded that the elderly show differing values on these than young people. There are confounding factors (drugs and disease) that vary among different groups of the elderly as well as between the elderly and the young (Kinsell & Harrison, 1982).

Recent studies (Mitchell & Lipschitz, 1982; Roche, 1982; Van Itallie, 1982) have shown how body composition changes in the elderly. As one ages there is less lean body mass and the fat distribution changes, resulting in more fat on the trunk. Weight also increases with age. Women gain more weight than men and tend to keep it on. Men gain weight until age 50 and then weight begins to decline.

Specific Senior Adult Requirements

Calorie and energy requirements. An individual's basal metabolic rate decreases about 2 percent per decade in adulthood (Durnin & Passmore, 1967). This is due to a change in body composition as the result of lean tissue being converted to fat. Another factor is physical activity.

It is difficult to assess the reduction in physical activity as one ages. However, McGandy, Barrows, Spanias, Meredith, Stone, and Norris (1966) studied activity of men and found a constant decline of activity from age 45-75 and a greater decline after age 75.

In the Recommended Dietary Allowances (RDA, 1980), the National Research Council of the National Academy of Sciences recommended energy allowances in the elderly be reduced to about 90% of that of younger adults. (See Table 1)

Table 1

Recommended Dietary Allowances (1980), p. 23.

Mean Heights and Weights and Recommended Energy Intake[a]

Category	Age (years)	Weight (kg)	Weight (lb)	Height (cm)	Height (in.)	Energy Needs (with range) (kcal)		(MJ)
Infants	0.0–0.5	6	13	60	24	kg × 115	(95–145)	kg × 0.48
	0.5–1.0	9	20	71	28	kg × 105	(80–135)	kg × 0.44
Children	1–3	13	29	90	35	1300	(900–1800)	5.5
	4–6	20	44	112	44	1700	(1300–2500)	7.1
	7–10	28	62	132	52	2400	(1650–3300)	10.1
Males	11–14	45	99	157	62	2700	(2000–3700)	11.3
	15–18	66	145	176	69	2800	(2100–3900)	11.8
	19–22	70	154	177	70	2900	(2500–3300)	12.2
	23–50	70	154	178	70	2700	(2300–3100)	11.3
	51–75	70	154	178	70	2400	(2000–2800)	10.1
	76+	70	154	178	70	2050	(1650–2450)	8.6
Females	11–14	46	101	157	62	2200	(1500–3000)	9.2
	15–18	55	120	163	64	2100	(1200–3000)	8.8
	19–22	55	120	163	64	2100	(1700–2500)	8.8
	23–50	55	120	163	64	2000	(1600–2400)	8.4
	51–75	55	120	163	64	1800	(1400–2200)	7.6
	76+	55	120	163	64	1600	(1200–2000)	6.7
Pregnancy						+300		
Lactation						+500		

The daily calorie intake rule of thumb for older adults is 1500 kilocalories (same as calories) for women and 2000 kilocalories for men. The difference between individuals depends on activity level and other complications of aging.

Underweight is a common problem in aging. Some of the reasons relate to loneliness, depression, lack of appetite, poor dentition, inability to eat adequate amounts of foods or inability to choose a variety of foods. Other complications may be chronic illness, surgery or malabsorption syndrome. Commercial formulas are available to supplement the diet with adequate calories, protein and all essential nutrients.

Protein needs. Older persons living alone often have diets low in protein. Meat is omitted when there is difficulty in chewing and milk and cheese are omitted when people live alone (Tempro, 1978). Low hemoglobin levels have been demonstrated to correlate with protein and iron content of the diet according to Morgan (1962).

Because the elderly have a high incidence of chronic diseases they require additional protein for replacement of body protein. The National Research Council (RDA, 1980) recommended that 12 percent or more of the energy intake of the elderly be in protein. This could be met by consuming 56 gm protein per day for males and 44 gm protein per day in females.

Some researches say the RDA recommendations are not sufficient for the elderly, especially in protein. Rao (1973) recommended that an increased protein intake (1.5 to

2.0 gm per kg of body weight) would be required in the elderly to maintain normal nitrogen balance, this would be 20-25 percent of the total calories from protein.

The need for essential amino acids is the same for older adults as for younger adults. Because the calorie level of the older individual is lower the quality of protein must be high. Choosing foods from animal products such as milk, cheese, eggs and meat will provide high quality protein. This protein should be protected from being used for energy by insuring adequate complex carbohydrate intake in the diet (Whitney & Hamilton, 1981).

Carbohydrate and fiber. The National Research Council has not set the optimal recommended daily allowances for carbohydrates (RDA, 1980). This decision was made because the body can synthesize its own carbohydrate from certain amino acids and fats. However, it is recommended that refined sugar be reduced and complex carbohydrates maintained or increased. When energy requirements are high as in fever or severe burns, carbohydrates are an inexpensive source of increased energy intake.

Glucose metabolism is greatly affected by aging. Albanese (1980) and Bierman (1976) explained that it is difficult to distinguish the difference between the effects of aging on glucose metabolism from the effect of genetic diabetes. Carbohydrate balance is one of the therapies of choice to maintain diabetes but will not be discussed in this paper.

Fiber is understood to be important in the diet but a

specific level has not been recommended yet. Dietary fiber provides bulk in the diet and aid in elimination. Researchers are currently examining the correlation between low fiber diet and the incidence of a number of diseases such as diverticulosis, cardiovascular disease, colonic cancer, and diabetes. These hypotheses have not been adequately investigated but are still in the research stages.

Fats. Fats should be limited in the diet of the elderly. The RDA (1980) supports the American Heart Association recommendations that less than 35 percent of the calorie intake be fats. Other researchers have recommended that fat consumption be as low as 20% of the calories in the diet (Rao, 1974). This would provide the essential fatty acid, linoleic acid and the fat soluble vitamins and also help to decrease the calories in the diet.

Atherosclerosis and cardiovascular complications are prevalent in the elderly and seem to be related to the aging process. The diet should include more unsaturated vegetable oils than saturated animal fats to help lower the cholesterol in the blood.

Vitamins and minerals. The nutrient needs of the elderly are basically the same as younger persons but must be met at a lower calorie level and in foods the elderly can tolerate. Vitamin deficiencies are common in the elderly. These deficiencies may result from inadequate intake, disease, drug interaction, or lack of exposure to the sun.

Vitamin A and ascorbic acid are often lacking in the diets of elderly people because they don't have access to

fruits and vegetables. The destruction of nutrients by overprocessing of foods may cause deficiencies of Vitamin E, Vitamin C and Vitamin A (Whitney & Hamilton, 1981). Various diseases may reduce absorption of vitamins such as B_{12} and reduce intrinsic factor; and absorption of iron and decreased stomach acidity (Tempro, 1978).

People who take mineral oil or laxatives that interfere in absorption or who consume a low fat diet may be deficient in fat soluble vitamins (A, D, and E) (Tempro, 1978; Whitney & Hamilton, 1981). Some antibiotics kill certain vitamin producing bacteria in the intestine and anticonvulsant drugs may result in folic-acid deficiencies (Balsley, Brink & Speckman, 1971).

Many older people who do not get out in the sun or who are hospital-bound are deprived of the Vitamin D they receive from exposure to sunshine. This deficiency can be prevented through a diet supplement or increased exposure to sunlight.

A recent report by Goodwin, Goodwin and Garry (1983) related poor cognitive function and low intake of riboflavin, folate, Vitamin B_{12} and ascorbate. According to Runcie (1981), thiamin and folate deficiencies give rise to confusion states complicated by paranoid ideas and frank psychosis. Runcie recommended that the diagnosis of senile dementia should never be made without first determining the patient's nutritional status.

Thiamin deficiency also causes abnormal cardiac function. If uncorrected this deficiency can lead to congestive cardiac failure (Whitney & Hamilton, 1981).

Minerals which are commonly deficient in the diet of the elderly include calcium, iron and zinc. Calcium deficiency along with low intake can cause loss of calcium from the bones and decrease bone density which eventually causes osteoporosis (Mayer, 1974). Low iron intake correlates with low hemoglobin levels which could account for much of the fatigue and apathy experienced by the elderly (Mayer, 1974). Zinc deficiency decreases the number and sensitivity of taste buds (Tempro, 1978). This decreases the pleasure of eating and may affect the status of other nutrients.

The elderly should not use large amounts of table salt or salty foods due to the probability of retaining fluid and elevating blood pressure (Tempro, 1978). All the nutrients and their requirements cannot be discussed in this paper. Little information is on hand in regards to the nutritional requirements of all the trace elements needed by the elderly. The only safe interpretation of nutritional information for the elderly is that they are prone to nutritional deficiencies and careful attention to their diet and nutritional status is recommended. Appendix A contains a list of the Recommended Dietary Allowances for Healthy Individuals (RDA, 1980).

Water. The elderly need to be reminded to drink water. Inadequate water intake results in a dry mouth and chewing and swallowing difficulties. Rao (1973) recommended a daily intake of six to eight glasses of water to aid in urine output.

Practical Nutrition Guidelines for the Elderly

Practical guidelines. In order to meet the needs of the elderly, practical guidelines can be modified for individual needs. These include: (1) Meats can be chopped or ground for someone whose dentures don't fit properly, (2) seasonings can be used to compensate for reduced numbers of taste buds, (3) food should be moist to aid in swallowing when saliva production has decreased, (4) attractive and colorful foods with a variety of texture, shape, color, flavor and temperature, should be served especially to the person whose vision is fading, (5) socialization or companionship during meal times enhance interest and appetite, and (6) a variety of eating apparatus, available from an occupational therapist, can help a handicapped individual become more independent and improve interest in food, and (7) making a shopping list and providing transportation to the store may increase variety and nutritional quality of the diet of individuals who cook for themselves.

Vitamin supplements. It may be advisable for the senior adult to take a multi-vitamin and mineral supplement. Consultation with a physician or registered dietitian is recommended to determine the appropriate vitamin supplement for each individual.

Dietary recommendations. The following dietary recommendation for senior adults was adopted from the publication Nutrition and Your Health--Dietary Guidelines for Americans (1980). These guidelines were developed by the U. S. Department

of Agriculture and U. S. Department of Health and Human Services. These recommendations can be used by professionals to instruct older adults in making wise food choices.

1. Eat a variety of foods.

Since the calorie level is lower for most elderly, food choices should be high in nutrients and low in calories. Choose foods fresh, raw and canned from the following food groups: fruits, citrus (Vitamin C); vegetables, dark green and dark yellow (Vitamin A); whole grain and enriched breads, cereals and grain products; milk, cheese and yogurt; meats, poultry, fish and eggs; legumes (dry peas and beans); drink six to eight cups of water.

2. Maintain ideal weight.

A balance must be achieved between energy taken in (in the form of food) and energy burned (in the form of activity). The average number of calories needed daily for the senior adult woman is 1500 kilocalories. The average number of daily calories needed for the senior adult man is 2000 kilocalories. The food groups can be divided up based on "food exchanges" to achieve the appropriate calorie level (Whitney & Hamilton, 1981).

Food group	Woman 1500 Kcal	Man 2000 Kcal
Milk, skim	3	3
Vegetable	2	3
Fruit	3	4
Bread	10	10
Meat (lean)	4	7
Fat	4	4

3. Avoid too much fat, saturated fat, and cholesterol.

-Choose lean meat, fish, poultry

-Moderate use of eggs and organ meats

-Limit intake of butter cream, hydrogenated margarines, shortenings, coconut oil

-Trim excess fat off meats

-Bake, broil or boil, don't fry

-Read labels to determine both amount and types of fat contained in foods

4. Eat Foods with Adequte Starch and Fiber.

-Substitute starches for fats and sugars

-Select foods which are good sources of fiber and starch, such as whole grain breads and cereals, fruits and vegetables, beans, peas, and nuts

5. Avoid Too Much Sugar

-Eat less simple sugars such as jam, jelly, white sugar, brown sugar, honey, syrups

-Eat less foods containing these sugars, such as candy, soft drinks, ice cream, cakes, cookies

-Choose fresh fruits canned without sugar or light syrup rather than heavy syrup

-Read food labels: if the names sucrose, glucose, maltose, dextrose, lactose, fructose or syrups appear first, then there is a large amount of sugar

6. Avoid Too Much Sodium

-Learn to enjoy the unsalted flavors of foods

-Cook with only small amounts of added salt

-Add little or no salt to food at the table

-Limit your intake of salty foods, such as potato chips, pretzels, salted nuts, and popcorn, condiments (soy sauce, steak sauce, garlic salt), cheese, pickled foods, cured meats

-Read food labels carefully to determine the amounts of sodium in processed foods and snack items

7. If you drink alcohol, do so in moderation.

Conclusion

In this paper the aspects of exercise and nutrition have been explored as they relate to the well-being of senior adults. It appears that there is a cyclic relationship among (1) the psychological and physiological well-being of senior adults, (2) exercise, and (3) nutrition. Just as the healthy older adult is more likely to obtain proper nutrition and exercise, so it is that a regular physical activity program and proper nutritional practices enhance ones good health. In essence the goal of the professional who works with senior adults is to enhance the likelihood that seniors become benefactors of this cycle in terms of better health and well being.

The most prevalent needs of senior adults regarding physical activity are the lack of flexibility, strength, and endurance to adequately perform the activities of daily living. In order to initiate a program of regular exercise seniors should be advised to start slowly and progress gradually. By following the proposed guidelines, exercise can be an enjoyable part of daily living.

The most pressing needs of seniors related to nutrition include the need for decreased calorie intake while at the same time increasing the quality of nutrition by eating a wide variety of foods. The results of following these dietary guidelines outlined in this paper include maintaining ideal

body weight and achieving optimum nutritional status. Long-term benefits include increased resistance to disease, maintenance of physiological functions and optimum mental capacity.

The senior years can be fulfilling and enjoyable. Proper diet and exercise increase the likelihood of individuals achieving and maintaining good health through their aging years.

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FOOD AND NUTRITION BOARD, NATIONAL ACADEMY OF SCIENCES–NATIONAL RESEARCH COUNCIL
RECOMMENDED DAILY DIETARY ALLOWANCES,[a] Revised 1980

Designed for the maintenance of good nutrition of practically all healthy people in the U.S.A.

	Age (years)	Weight (kg)	Weight (lb)	Height (cm)	Height (in)	Protein (g)	Fat-Soluble Vitamins: Vitamin A (μg RE)[b]	Vitamin D (μg)[c]	Vitamin E (mg α-TE)[d]	Water-Soluble Vitamins: Vitamin C (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg NE)[e]	Vitamin B-6 (mg)	Folacin[f] (μg)	Vitamin B-12 (μg)	Minerals: Calcium (mg)	Phosphorus (mg)	Magnesium (mg)	Iron (mg)	Zinc (mg)	Iodine (μg)
Infants	0.0–0.5	6	13	60	24	kg × 2.2	420	10	3	35	0.3	0.4	6	0.3	30	0.3[g]	360	240	50	10	3	40
	0.5–1.0	9	20	71	28	kg × 2.0	400	10	4	35	0.5	0.6	8	0.6	45	1.5	540	360	70	15	5	50
Children	1–3	13	29	90	35	23	400	10	5	45	0.7	0.8	9	0.9	100	2.0	800	800	150	15	10	70
	4–6	20	44	112	44	30	500	10	6	45	0.9	1.0	11	1.3	200	2.5	800	800	200	10	10	90
	7–10	28	62	132	52	34	700	10	7	45	1.2	1.4	16	1.6	300	3.0	800	800	250	10	10	120
Males	11–14	45	99	157	62	45	1000	10	8	50	1.4	1.6	18	1.8	400	3.0	1200	1200	350	18	15	150
	15–18	66	145	176	69	56	1000	10	10	60	1.4	1.7	18	2.0	400	3.0	1200	1200	400	18	15	150
	19–22	70	154	177	70	56	1000	7.5	10	60	1.5	1.7	19	2.2	400	3.0	800	800	350	10	15	150
	23–50	70	154	178	70	56	1000	5	10	60	1.4	1.6	18	2.2	400	3.0	800	800	350	10	15	150
	51+	70	154	178	70	56	1000	5	10	60	1.2	1.4	16	2.2	400	3.0	800	800	350	10	15	150
Females	11–14	46	101	157	62	46	800	10	8	50	1.1	1.3	15	1.8	400	3.0	1200	1200	300	18	15	150
	15–18	55	120	163	64	46	800	10	8	60	1.1	1.3	14	2.0	400	3.0	1200	1200	300	18	15	150
	19–22	55	120	163	64	44	800	7.5	8	60	1.1	1.3	14	2.0	400	3.0	800	800	300	18	15	150
	23–50	55	120	163	64	44	800	5	8	60	1.0	1.2	13	2.0	400	3.0	800	800	300	18	15	150
	51+	55	120	163	64	44	800	5	8	60	1.0	1.2	13	2.0	400	3.0	800	800	300	10	15	150
Pregnant						+30	+200	+5	+2	+20	+0.4	+0.3	+2	+0.6	+400	+1.0	+400	+400	+150	[h]	+5	+25
Lactating						+20	+400	+5	+3	+40	+0.5	+0.5	+5	+0.5	+100	+1.0	+400	+400	+150	[h]	+10	+50

[a] The allowances are intended to provide for individual variations among most normal persons as they live in the United States under usual environmental stresses. Diets should be based on a variety of common foods in order to provide other nutrients for which human requirements have been less well defined. See text for detailed discussion of allowances and of nutrients not tabulated. See Table 1 (p. 20) for weights and heights by individual year of age. See Table 3 (p. 23) for suggested average energy intakes.

[b] Retinol equivalents. 1 retinol equivalent = 1 μg retinol or 6 μg β carotene. See text for calculation of vitamin A activity of diets as retinol equivalents.

[c] As cholecalciferol. 10 μg cholecalciferol = 400 IU of vitamin D.

[d] α-tocopherol equivalents. 1 mg *d*-α tocopherol = 1 α-TE. See text for variation in allowances and calculation of vitamin E activity of the diet as α-tocopherol equivalents.

[e] 1 NE (niacin equivalent) is equal to 1 mg of niacin or 60 mg of dietary tryptophan.

[f] The folacin allowances refer to dietary sources as determined by *Lactobacillus casei* assay after treatment with enzymes (conjugases) to make polyglutamyl forms of the vitamin available to the test organism.

[g] The recommended dietary allowance for vitamin B-12 in infants is based on average concentration of the vitamin in human milk. The allowances after weaning are based on energy intake (as recommended by the American Academy of Pediatrics) and consideration of other factors, such as intestinal absorption; see text.

[h] The increased requirement during pregnancy cannot be met by the iron content of habitual American diets nor by the existing iron stores of many women; therefore the use of 30–60 mg of supplemental iron is recommended. Iron needs during lactation are not substantially different from those of nonpregnant women, but continued supplementation of the mother for 2–3 months after parturition is advisable in order to replenish stores depleted by pregnancy.

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S.W.A.N. - An Experiment in Education

David Turner

Although it is commonly thought that education is for life career preparation, the senior citizens of Salt Lake City have begun to take advantage of opportunities for life-long learning through the pioneer efforts of the Senior Wellness Advocacy Network. This paper will describe some of the beginning efforts of SWAN.

Not long ago it was generally assumed that education served the purpose of career preparation. The fact is, learning is a lifetime activity enjoyed by many elderly persons long after job concerns have ended. There are at least three reasons why seniors continue to want to learn. First of all, they are curious and want to know about the world that surrounds them. Curiosity reminds them to keep the mind active, stimulated and fights disengagement. Secondly, learning also enriches life. Such enrichment cannot be had by submitting passively to events, but by actively engaging in structured and physical envolvement. Thirdly, learning just as for all of us, improves our ability to adapt and survive. Valuable and needed information is necessary to all persons if they are to function in a healthy state.

Even though we often assume formal education

is completed before retirement years, the hunger for information continues. An excellent method to satisfy that hunger is in small workshops designed to give seniors vital skills that pertain to their current concerns.

Health promotion and wellness is an area of concern which has received considerable attention. It is a concept that aims to give seniors information and thereby choices that can make a difference in quality of life. The Administration of Aging funded such a program at the University of Washington School of Social Work called the Wallingford Wellness Project. Another program which dovetails very well into the Washington project is Prevention: The Key to Health Aging. The latter was a product of the Western Regional State Prevention Coordinators Network. Together the two programs provide five different areas in which seniors can receive a valuable learning experience, i.e., stress management, nutrition, physical fitness, environmental assertiveness, and alcohol and drug misuse. The purpose of this paper is to report on the implementation of three of these subjects in Utah and to perhaps give advice to others who may be considering such a program. Much of the early

testing was done by the originators of the programs and it may be useful for them to know how others were able to utilize their materials.

The genesis of the workshops for seniors in Utah was a training session conducted in the fall of 1982, by the Divisions of Aging and Alcoholism and Drugs. One of the trainers was a social worker who had received training from the Wallingford project. Included in this training were professional and volunteer workers in the human services from all over the state. After the training a group of professionalsfrom Salt Lake County met to express concern that the training be directed as soon as possible to the senior citizens of the most populous county in the state. Each person came from a different agency and perspective. It was obvious to all of them that a serious learning program would be impossible unless there was coordination of effort and a small, but well planned beginning. The group met early mornings and formed the Senior Wellness Advocacy Network. It was evident to SWAN that single agencies rarely have the resources and manpower to initiate new programs. The very concept of wellness requires that it receive imput from a variety of sources. Because SWAN represented people from all different point of view and expertise it was able to supply that variety.

As soon as possible SWAN determined to make a dent in the need for wellness education. Workshops were independently conducted for seniors who were already clients or center participants. Prior to the workshops, the team conducted a needs assessment survey during a series of health fairs. Over five hundred seniors responded to questions about their health concerns (see appendix A). Results were analyzed by the county division on aging. At least 252.2% of the respondants stated that their doctor had the major responsibility for their health care. One of the major tenants of the wellness concept is that the individual must take the major responsibility for his/her health and health care. Former Secretary of Health, Education and Welfare Joseph Califano has said that each individual can do more for his health and well-being than any doctor, any hospital, any drug, and exotic medical device.[1] (1979, p.VIII)

A second implementary step was to evaluate pilot workshops that had been conducted during the summer of 1982. With the technical assistant of Salt Lake County Aging, the Central City Multi-Purpose Center had conducted three separate workshops. Two groups had been taught on the use of stress management and a third class had received nutritional training. The materials had come from the Wallingford Wellness Project. The

two stress management workshops had been quite successful partly due to subject interest. Nutrition had been less so; again the subject interest and recruitment were the major problems. Stress management was a subject that had high interest value. In the needs assessment arthritis and weight loss were the only areas that indicated more interest. Evaluations from participants were very positive. Nutrition had a large interest but registration was small. It is possible that recruitment was poor. However, because of regular nutritional presentations at Central City by the Division of Aging and Salt Lake School District, the subject was over loaded.

After looking at the preceeding groups, the program coordinator at Central City and the Director of the Consumer Health Information Center, both members of SWAN, decided to pilot a prevention workshop in alcohol and drug abuse. The emphasis was to be on the training of peer counselors and co-leaders of future workshops. The rational was that alcohol and drugs were loaded subjects and participants needed to be carefully chosen. The program was not designed to counsel serious alcohol and medication misusers nor as an intervention device. The local culture does not approve of alcohol usage

in any form and unfortunately much of the senior alcohol use is hidden. For someone to admit alcohol use is extremely difficult, but accepting training to help others is acceptable.

It is evident from hindsight that the actual teaching of a workshop is the easiest part. Much more difficult, even with a good published program, is adequate planning, effective recruitment and follow through with consistency for beginning to end. Useful evaluation is not a simple matter either. It is in these domains that short cuts are often taken making the results less satisfactory.

Once the two co-leaders had decided on a topic and had divided responsibility for each lesson, it was necessary to choose a location. The Central City Senior Citizen Center was chosen because it already attracted a number of seniors for a variety of programs. The population was not large enough to fill a workshop but it was a seed. The building had a senior lounge that provided a comfortable atmosphere. It was more like a living room than a classroom.

The second step was recruitment. The regular center newsletter ran an article about the workshop which resulted in three participants. Next, a letter was written to apartment managers,

The co-leaders were very careful to follow the basic published program in order to take advantage of it as well as provide an arena to test its concepts and design.

The classes themselves were conducted as informally as possible. Refreshments were provided before class to put participants at ease. Everyone wore a large name tag and first names were used. Discussion, small group work and personal experience stories were encouraged.

At the conclusion of each class it was helpful to conduct a mini-evaluation. Among the most frequently mentioned positive factors were the opportunity to relate and discuss personal experiences. From the co-leaders point of view, that was a source of some frustration. It was not always possible to complete each lesson during the alloted time. Participants wishes included the desire for more time and some concern about having a whole week between each session. It was never possible to maintain a well developed sense of continuity with the sessions spread out over four weeks.

A further difficulty was transportation and attendance. Many seniors have serious transportation problems and would participate much more if they could be solved. One solution would be to

ministers, and senior organizations in the community (See appendix B). The intent was to solicit recommendations of seniors who would be interested and benefit from the program. The letters were followed up by a personal phone call. From that effort 25 names were received. Each senior that received a written invitation to join the workshop (See appendix C), altogether there were thirteen persons who responded, enough to begin the workshop.

It became obvious to the co-leaders that even though they were personally convinced of the value of such an educational experience, it was necessary to sell it to senior citizens. Further study would be valuable as to why this is the case.

The participants who enrolled, however, were highly motivated and proved to be excellent students. The workshop design consisted of four sessions held once a week in the morning. Each meeting lasted an hour and a half. The first week covered the area of the concept of aging itself and some of its concerns. The second week was devoted to information about alcohol and drug effects on the elderly. This session developed the concept of prevention and building on positive strengths to combat problems. The fourth issue was a wrap up exploring ideas about how to get involved.

consider conducting workshops within the apartment complex sites themselves. Most large housing facilities have areas where educational programs could be conducted. Attendance problems are not easy to solve. In spite of a desire to attend, seniors sometimes forget or get sick. It was very helpful to make reminder phone calls the day before each class. Even so all of the enrolled participants did not attend every class. Again this may be solved by conducting the classes during two consecutive days.

In spite of the above mentioned problems the feeling of the group was extremely positive. All of them said they felt more qualified to help a personal friend or relative and several expressed a desire to become co-leaders in future groups.

It remains to be seen what the future benefits of such a program are. It would be useful six months hense to interview each participant to see if any have done some peer-counceling. Also the retention of information should be tested. The most obvious evaluation is the future growth of such workshops as a direct result of SWAN's efforts.

REFERENCES

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APPENDIX A

S.W.A.T.

SENIORS WELLNESS ADVOCACY TEAM

1983 HEALTH FAIR SURVEY

PLEASE TAKE A FEW MINUTES TO FILL OUT THIS SURVEY TO HELP US IN PLANNING. YOU WILL NOT BE IDENTIFIED IN ANY WAY.

1. How satisfied are you with the health care you now receive? (circle one)

VERY SATISFIED	SOMEWHAT SATISFIED	SATISFIED	SOMEWHAT DISSATISFIED	VERY DISSATISFIED
36.7%	15.5%	33.6%	11.9%	2.3%

2. Do you ever go without needed health services because of their high costs?
   Yes 46.5% No 53.5%

3. What do you consider your greatest health problem? (see attached)

4. Do you go to the doctor:
   - 20.3% Only in an emergency?
   - 35.5% Only when you are really sick?
   - 16.1% Whenever you don't feel well?
   - 28.1% On a regular basis?

5. Is your doctor:
   - 81.6% Willing to take time to answer your questions?
   - 10.2% Unwilling to take time to answer your questions?
   - 8.2% I usually don't ask my doctor any questions?

6. Do you use any medications on a regular basis? Yes 61.7% No 38.3%

7. How many different medicines are you currently taking? average=2.0985
   - -How many are prescribed by your doctor? 75.1%
   - -How many are over-the-counter drugs? 24.9%

8. Has your doctor reviewed your prescriptions in the past year? Yes 72.4% No 27.6%

9. Have you ever felt that you were taking too many medications? Yes 20.5% No 79.5%

10. Are you taking any medications for which you don't know why it was prescribed?
    Yes 5.0% No 95.0%

11. Do you feel the drinking of alcoholic beverages is a problem for any of your friends? Yes 30.3% No 69.7%

12. Has the use of alcoholic beverages ever been a problem to you? Yes 5.1% No 94.9%

(1785) 13. PLEASE CHECK THOSE AREAS YOU WOULD BE INTERESTED IN LEARNING MORE ABOUT:

166	VITAMINS & OVER-THE-COUNTER DRUGS	143	NUTRITION
73	DOCTOR/PATIENT COMMUNICATION	234	ARTHRITIS
153	RELAXATION EXERCISES/STRESS MANAGEMENT	148	EXERCISE
71	ADJUSTING TO RETIREMENT	40	SAFETY
72	PRESCRIPTION DRUGS	44	SEXUAL HEALTH
75	CONTINUING EDUCATION	87	EMOTIONAL WELL-BEING
65	DEALING WITH LONELINESS & LOSS	62	MYTHS OF AGING
19	HOW TO QUIT SMOKING	67	HEALTH RESOURCES
201	HOW TO LOSE WEIGHT	44	SECOND CAREERS
21	PROBLEM DRINKING		

(589) 14. IF INFORMATION ON THESE TOPICS WAS AVAILABLE, WHERE WOULD YOU PREFER TO GO TO OBTAIN IT?

280	SENIOR CITIZENS CENTER	34	SCHOOL
117	HEALTH SCREENING CENTER	54	PUBLIC LIBRARY
56	HOUSING PROJECT	48	CHURCH

(476) 15. DO YOU USE HEALTH SCREENING SERVICES (E.G. BLOOD PRESSURE CHECKS, CANCER SCREENING, ETC.)? YES 349 NO 127

(369) IF YES, WHERE DO YOU USUALLY GO TO OBTAIN THEM? Senior Center 197

(224) IF NO, PLEASE INDICATE WHY YOU DO NOT USE THEM: Doctor 90
Housing Project 82

30 NO NEED TO
15 TAKES TOO LONG
15 INCONVENIENT TO GET TO
12 DO NOT LIKE OR TRUST THE STAFF
64 PREFER OWN PHYSICIAN, EVEN THOUGH IT COSTS MORE
88 DON'T KNOW ABOUT THESE SERVICES

(584) 16. WHO HAS THE MAJOR RESPONSIBILITY FOR YOUR HEALTH?

147	PHYSICIAN	29	FAMILY	1	NEIGHBOR
21	CLINIC	381	SELF	5	OTHER --

THANK YOU FOR HELPING US. THIS INFORMATION WILL HELP US IN SERVING YOU.

IF YOU WOULD LIKE MORE INFORMATION ON AVAILABLE SERVICES, PLEASE CALL:
535-5454

#3 What do you consider your greatest health problem?

	#	%
Arthritis	170	25.3
Blood Pressure/Hypertension	97	14.4
Overweight	64	9.5
Heart	51	7.6
Old Age	28	4.2
Eyes	26	3.9
Diabetes	23	3.4
None	19	2.8
Backache	15	2.2
Ears	14	2.1
Injury	4	*
Feet	11	1.6
Allergie	7	1.0
Sinus	6	*
Colds/Flu	13	1.9
Nerves	15	2.2
Stroke	5	*
Asthma	11	1.6
Hernia	3	*
Kidneys	6	*
Thyroid	5	*
Digestion	11	1.6
Depression	2	*
Pneumonia	4	*
Blindness	1	*
Tired	4	*
Bowels	4	*
Headache	9	1.3
Varicose Veins	2	*
Ulcers	15	2.2
Cancer	17	2.5
No Sleep	11	1.6
High Cholesterol	3	*
Typhus	2	*
Multiple Sclerosis	2	*
Bladder	1	*
Memory	2	*
Emphysema	4	*
High Cost	1	*
Colitis	1	*
Teeth	1	*
Diarrhea	1	*
	672	100%

* less than 1% of total

13. PLEASE CHECK THOSE AREAS YOU WOULD BE INTERESTED IN LEARNING MORE ABOUT:

9.3% VITAMINS & OVER-THE-COUNTER DRUGS
4.1% DOCTOR/PATIENT COMMUNICATION
8.6% RELAXATION EXERCISES/STRESS MANAGEMENT
4.0% ADJUSTING TO RETIREMENT
4.0% PRESCRIPTION DRUGS
4.2% CONTINUING EDUCATION
3.6% DEALING WITH LONELINESS & LOSS
1.1% HOW TO QUIT SMOKING
11.3% HOW TO LOSE WEIGHT
1.2% PROBLEM DRINKING
8.0% NUTRITION
13.1% ARTHRITIS
8.3% EXERCISE
2.2% SAFETY
2.5% SEXUAL HEALTH
4.9% EMOTIONAL WELL-BEING
3.5% MYTHS OF AGING
3.8% HEALTH RESOURCES
2.5% SECOND CAREERS

14. IF INFORMATION ON THESE TOPICS WAS AVAILABLE, WHERE WOULD YOU PREFER TO GO TO OBTAIN IT?

47.5% SENIOR CITIZENS CENTER
19.9% HEALTH SCREENING CENTER
9.5% HOUSING PROJECT
5.6% SCHOOL
9.2% PUBLIC LIBRARY
8.1% CHURCH

15. DO YOU USE HEALTH SCREENING SERVICES (E.G. BLOOD PRESSURE CHECKS, CANCER SCREENING, ETC.)? YES 73.3% NO 26.7%

IF YES, WHERE DO YOU USUALLY GO TO OBTAIN THEM? Senior Center 53.4%
Doctor 24.4%
Housing Project 22.2%

IF NO, PLEASE INDICATE WHY YOU DO NOT USE THEM:

13.4% NO NEED TO
6.7% TAKES TOO LONG
6.7% INCONVENIENT TO GET TO
5.3% DO NOT LIKE OR TRUST THE STAFF
28.6% PREFER OWN PHYSICIAN, EVEN THOUGH IT COSTS MORE
39.3% DON'T KNOW ABOUT THESE SERVICES

16. WHO HAS THE MAJOR RESPONSIBILITY FOR YOUR HEALTH?

25.2% PHYSICIAN
3.6% CLINIC
5.0% FAMILY
65.1% SELF
0.2% NEIGHBOR
0.9% OTHER_____

THANK YOU FOR HELPING US. THIS INFORMATION WILL HELP US IN SERVING YOU.

IF YOU WOULD LIKE MORE INFORMATION ON AVAILABLE SERVICES, PLEASE CALL:
535-5454

S.W.A.T.
SENIORS WELLNESS ADVOCACY TEAM
1983 HEALTH FAIR SURVEY

PLEASE TAKE A FEW MINUTES TO FILL OUT THIS SURVEY TO HELP US IN PLANNING.
YOU WILL NOT BE IDENTIFIED IN ANY WAY.

(479) 1. How satisfied are you with the health care you now receive? (circle one)

VERY SATISFIED	SOMEWHAT SATISFIED	SATISFIED	SOMEWHAT DISSATISFIED	VERY DISSATISFIED
(176)	(74)	(161)	(57)	(11)

(529) 2. Do you ever go without needed health services because of their high costs?
Yes 246 No 283

(360) 3. What do you consider your greatest health problem? (see attached)

(608) 4. Do you go to the doctor:
123 Only in an emergency?
216 Only when you are really sick?
98 Whenever you don't feel well?
171 On a regular basis?

(539) 5. Is your doctor:
440 Willing to take time to answer your questions?
55 Unwilling to take time to answer your questions?
44 I usually don't ask my doctor any questions?

(567) 6. Do you use any medications on a regular basis? Yes 350 No 217

(497) 7. How many different medicines are you currently taking? 980
-How many are prescribed by your doctor? 736
-How many are over-the-counter drugs? 244

(427) 8. Has your doctor reviewed your prescriptions in the past year? Yes 309 No 118

(414) 9. Have you ever felt that you were taking too many medications? Yes 85 No 329

(397) 10. Are you taking any medications for which you don't know why it was prescribed?
Yes 20 No 377

(547) 11. Do you feel the drinking of alcoholic beverages is a problem for any of your friends? Yes 166 No 381

(552) 12. Has the use of alcoholic beverages ever been a problem to you? Yes 28 No 524

APPENDIX B

RECREATION, PARKS and MULTI-PURPOSE CENTERS DIVISION
3383 South 3rd East
Salt Lake City, Utah 84115

M. TOM SHIMIZU
Commissioner

GARY C. SWENSEN
Superintendent

CHRIS SEGURA
Director, Human Services

MULTI-PURPOSE CENTERS
Glen Lu, Director
8446 South Harrison Street
Midvale, Utah 84047
Phone 535-5739

CENTRAL CITY CENTER
Jerry Carter, Jr.
Center Director
615 South 300 East
Salt Lake City, Utah 84111
Phone 535-7137

COPPERVIEW CENTER
Mike Peterson
Center Director
8446 South Harrison Street
Midvale, Utah 84047
Phone 535-5034

NORTHWEST CENTER
Steven E. Parker
Center Director
1300 West 300 North
Salt Lake City, Utah 84116
Phone 535-7930

REDWOOD CENTER
Richard Smiley
Center Director
3060 Lester Street
Salt Lake City, Utah 84119
Phone 535-5040

The Central City Multipurpose Center will be developing a number of classes dealing with health promotion. These classes will involve older persons above the age of 60 in learning how exercising, controlling stress, and eating healthy foods can improve one's health and prevent illness and dependency. These classes will also introduce senior citizens to techniques to help others with alcohol and drug-related problems. These classes will be designed to help build on the positive health and living habits of participants as well as to generate motivation, support, and tools for choosing and maintaining individually healthier life-styles for themselves and those for whom they feel responsible.

We are looking for people to participate in this project. We would like to find 10 senior citizens who are concerned about another's alcohol or drug-related problems. These people will later be able to act as peer counselors and possibly help train others who have similar concerns.

To find these people, we need your help. Upon recommendation from you, we would like to invite people to attend a workshop lasting 4 sessions of 1½ hours each during the month of May.

This program as been developed at the Wallingford Wellness Program in Seattle Washington and has the full cooperation of the State Division of Aging, Alcohol and Drugs as well as the Salt Lake County Division of Aging.

Please consider any older adults you may know and communicate any possible names to us at the center. There is no fee for the training or materials.

Also, if you have any questions, please don't hesitate to contact us. We look forward to hearing from you.

Sincerely,

David Turner
Senior Citizen Program Coordinator
535-7137

APPENDIX C

RECREATION, PARKS and MULTI-PURPOSE CENTERS DIVISION
3383 South 3rd East
Salt Lake City, Utah 84115

M. TOM SHIMIZU
Commissioner

GARY C. SWENSEN
Superintendent

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Salt Lake City, Utah 84116
Phone 535-7930

REDWOOD CENTER
Richard Smilley
Center Director
3060 Lester Street
Salt Lake City, Utah 84119
Phone 535-5040

Dear

The Central City Multi-Purpose Center will be developing a number of classes dealing with health promotion. These classes will involve persons above the age of 60. Thus far we have held sessions in controlling stress and nutrition.

During the month of May we will be holding a series of 4 classes to introduce people to techniques to help others who may have problems with alcohol or drug misuse. These classes will be designed to build on the positive health and living habits of participants.

We are looking for people to participate in this project. After the training you will be able to act as a peer counselor for someone who needs your help and possibly help train others who have similar concerns.

This program has been developed at the Wallingford Willness Program in Seattle, Washington and has the full cooperation of the State Division of Aging, Alcohol and Drugs, as well as the Salt Lake County Division of Aging.

The class starts May 10, 1983 at 10:00 a.m. Each session will last 1½ hours. There is no fee for the workshop.

If you would like to register for the workshop, please call as soon as possible. The class will have a maximum of 10 participants. We look forward to hearing from you.

Sincerely,

David Turner
Senior Citizen Program Coordinator

DT:nd

AQUA-CALISTHENICS

Sonja Glassmeyer

I am sure that we would all agree that health is the most important consideration for any time in life. Optimum physical and mental health have many facets including good nutrition, adequate rest and exercise. The years stretching from the forties through the sixties are the prime years of life and are the years in which to evaluate and cultivate good health habits. Within these years we must also develop a daily disciplined physical fitness program, if we have not already done so. Most physicians agree that if we take care of our bodies in the fifties, the cost of our medical care in the sixties will be sharply reduced.

With the exception of heredity, most of the factors that contribute to longevity are within our control. HEALTHY PEOPLE, the Surgeon General's Report on Health Promotion and Disease Prevention, states: "While not yet definitely proven, the role of exercise in preventing heart disease is attractive and plausible. An example of the growing evidence supporting the association between exercise and reduced cardiovascular risk comes from a study of 17,000 Harvard alumni. The physically active among them had significantly fewer heart attacks than the more sedentary. Those who expended less than 500 calories a day in exercise were found to develop heart disease at about twice the rate of those expending 2,000 or more calories a week. (Approximately 100 calories are used for each mile run or walked). Regular, vigorous exercise was found to reduce risk of heart disease independently of other risk factors, such as cigarette smoking or high blood pressure.

What kind of exercise is best? There are many exercise programs available, but the best exercises are rhythmic, continuous and vigorous. If exercise is to be beneficial, it must meet the following standards and if one of the standards is missing, the conditioning affect will not be as good.

1. Exercise should be gradual and progressive. Start slow, rest when necessary, so just beyond the point of comfort, but not to the point of fatigue.

2. Duration of exercise should be for at least 20-30 minutes, not including warm-ups or cool-down periods.

3. Exercise at least three times a week, on alternate days. Do not become a "week-end warrior"! This could be dangerous and will not be beneficial.

4. Endurance exercise is needed to elevate the pulse rate and force deep breathing.

5. Amount of time: start with just a few minutes and work up to a minimum of 15-20 minutes. After endurance is built up, you can increase the amount of time you exercise.

A Fun Exercise Program: Aqua-Calisthenics (Exercising in the Water)

Although swimming is widely recognized as one of the best all-around forms of exercise, there are many other ways the water can be utilized to give the body overall tone and increased aerobic capacity. Exercising while immersed in a pool is both pleasant and stimulating and due to the buoyancy of the body in water, you will experience an apparent loss of 80% of your body weight. The participant does not need to know how to swim and the waters resistance to increasing rates of movement promotes strength and muscle tone without stiff and sore muscles.

In addition, the water's buoyancy minimizes the pull of gravity, thereby making it possible for those who must keep exercise on the milder side, to move through the full range of motion with little effort. This type of exercise is unsurpassed for the elderly, convalescent, obese or for those recuperating from illness or surgery or who have arthritis. (Athletes have found water exercises to be of great value in building endurance without risking injuries.)

A variety of exercises, including partner exercises and circuit training, can be done in the water. In fact, most "dry land" exercises can be done in the pool as well, with slight and imaginative adjustments. Most of the exercises are performed in the hsallow part of the pool, however, many exercises are/can be done in the deep water. Devices such as kick-boards, innertubes, water-polo, or beach balls, towels and wands, can also be utilized as a part of the exercise routine. Music can be added as a motivator and line and circle dancing can even be done in the pool. For added resistance, old tennis shoes, socks, old sweat shirts/pants can be worn over swim suits.

As with any other form of exercise, an aqua-calisthenics session begins with a short period of warm-ups, either out of the water or in the pool. Once in the water, it is important to keep moving - not only to keep from getting chilled, but also to receive maximum benefits from the water. Each session ends with a short cool-down and relaxation period.

Recommended time allotment:

Warm-ups.....5-10 minutes
Exercises.....15-20 minutes
Cool-down .....5 minutes

A variety of exercises should be included so that all parts of the body are used, including the cardio-vascular system.

Summer, 1983 Aqua-Calisthenics Class at B.Y.U.

The Physical Education Department and the Resource Center on Adult Development and Aging co-sponsored a free Aqua-Calisthenics course. This class was taught by Dr. Sonja Glassmeyer, Associate Professor of Health and Physical Education, California Polytechnic State University, San Luis Obispo. Dr. Glassmeyer taught this class as part of the requirements for her studies in Gerontology at BYU.

The class met 4 times a week, Monday through Thursday, from 4:10 p.m. until 5:00 p.m. The class was held in the indoor swimming facility, Richards Building, BYU campus. The shallow pool was used exclusively.

The class was advertised as a class for the non-swimmer and for those wishing an alternative form of fitness program. The program was also advertised as being for those who were 50 years old or older. The advertisements went to a variety of community and campus people including Senior Citizen Centers, faculty and staff newsletters and the campus newspaper.

In the beginning, the class was small - only about five people. As the word spread, more and more people started to come. By the end of the summer session, which lasted 8 weeks, over 75 people had registered for the class and were coming on a regular basis. The large facility enabled the instructor to have approximately 50 people in the pool on any one day. Two life-guards were provided and three assistants, including the instructor's husband, were in the pool to help the participants with the exercises.

A variety of health problems were discovered among the participants. Several of the men had had at least one stroke - one man had had 6 strokes in the past 18 months. Many of the women were overweight, had been inactive for many years, and had lost their agility and flexibility. Several of the women also had had major surgery of one kind or another and several of the women also had rheumatoid arthritis.

Average age of the class:	69 Years
Youngest in Class:	50 Years
Oldest in Class:	81 Years

By the end of the first two weeks of class, the participants were feeling results. Some of the women had lost weight, while others showed improvement in their endurance and their ability to get in and out of the pool. All of the participants kept feeling better and better as the summer progressed and it was gratifying to see the results.

This class was a "first" for BYU and for most of the people in the class. There was such an interest, such improvement and such a need expressed for the class, that the end of the summer was indeed sad for all who had been involved with the class.

Miscellaneous information concerning the class:

--Swim Suits and towels were provided by BYU.

--Some of the participants found it useful to buy lightweight, rubber slippers to wear in the pool so that they would not slip on the bottom.

IMPLEMENTING A PHYSICAL ACTIVITY PROGRAM in a GERIATRIC FACILITY

presented by
CAROLE JEWKES*

PROBLEM:

Many people in facilities for the aged have lost their zest for life, as a result of having lost their friends, job, money, status, and their abilities to compete. They hurt inside, mentally. Thus, they sit around and vegetate, deteriorating physically, mentally, spiritually, socially, and emotionally.

ONE OF THE SOLUTIONS:

Here is a PHYSICAL FITNESS PROGRAM that can inspire the elderly to exercise regularly and increase their exercise until they have reached an ideal level.

HOW THIS IS DONE:

1. Develop a system of keeping track of the exercise each person does. (Evidence shows that when a record is kept, individuals increase production through self-evaluation.)

At Alpine Valley Care Center, a nursing home where the Recreation Director previously worked, patients reported their exercise to a fellow patient. This patient was given the title of Physical Fitness Recorder. This method was benificial in five ways. (1) A patient had a responsibility which helped him feel useful. (2) Those reporting, felt a sense of accomplishment everytime they reported what they had done. (3) Friendships were developed during their reporting visits. (4) A record was being kept of participants daily exercise. (5) It encouraged a competitive attitude among participants reporting.

Some patients, of course, did not have the mental faculties to report as they should. It was felt that if they exercised they also deserved an award, so the Recreation Director guessed at how many hours these patients spent exercising and then recorded it.

The Recreation Director is now working at Cove Point, a Retirement Community, where residents are alert and more physically able. Here, most participants keep track of their own exercise on THE PHYSICAL FITNESS CHART** (see page 5). Their Physical Fitness hours are reported to, or gathered by the Recreation Director and The Commissioner of Physical Fitness. (Cove Point has its own Town Government and the Commissioner of Physical Fitness is one of its officers.)

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*Carole Jewkes
Recreation Dir. & Care Coordinator
Cove Point Golden Living Center
1186 Columbia Lane
Provo, Utah 84604
377-9670

**The Recreation Dir. would like to thank Dr. Clark Thorstenson for his help in preparing this chart.

2. Develop a system of honoring each participant on a regular basis. It was found that participants were more apt to remain involved and even increase their participation when they were recognized often. So, monthly Physical Fitness Award Programs have been instigated at both the Nursing Home, and at Cove Point.

At these programs the following awards are given:

WHITE RIBBON = for any number of hours, 16 hrs & 20 mins or less per month
RED RIBBON = for any number of hours, 26 hrs & 20 mins or less per month
BLUE RIBBON = for any number of hours, 36 hrs & 20 mins or less per month
PURPLE RIBBON = for any number of hours, 37 hrs & over per month

Participants are honored in two different ways: (1) Each gets his name on a large ribbon displayed for everyone to see. Four oversized ribbons, white, red, blue and purple are made, displaying up to six months worth of names at a time, each name is listed under the month earned. (2) Each participant is presented a small ribbon, with his own name, number of hours and the month typed on it, to keep for himself.

3. Provide monthly "pep talks" for participants. At the Nursing Home, the Recreation Director gave the monthly "pep talks", then allowed the participants to bear testimony of how they benifited from participating. At Cove Point, each month, an outstanding speaker is invited to give the "pep talks". If there is enough time afterward, these participants also bear testimony of the benefits of such a program.

SOME INTERESTING FACTS ABOUT EXERCISE:

When exercizing to ones capacity* for 20 consecutive minutes or more daily, endorphins are stimulated (which is the body's natural morphine), and can dull, or even eliminate pain.

Twenty consecutive minutes or more of daily exercise, causes a physiological reaction that actually stimulates an euphoria in the individual.

There are many other obvious benifits not mentioned here.

SOME POSITIVE RESULTS:

At the Nursing Home, Elvin sat listlessly in his big easy chair day after day. He cried whenever he was asked how he was doing. He was too weak to participate in any of the activi-

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*Ones capacity may have to be determined by a physician if in question.

ties, and could hardly walk to and from his room each day. When invited to participate in the new Physical Fitness Program, he explained that his health just wouldn't permit it.

At the second Physical Fitness Awards Program, (not the first) Elvin finally listened and watched as his peers testified how much the program was helping. They said things such as: "It's changed my life!", "I am getting stronger everyday!", 'I ached everywhere, and all the time before I started walking. Now my aches are fewer and farther between, and when it does hurt, it doesn't hurt as much!", "Since I've started walking, I've been getting acquainted with people I hardly knew before!", "I seem to be regaining the health I used to have, and I haven't been this happy in years!"

Elvin didn't hear these people say these things just casually, either. He heard them speak these things with much feeling and appreciation for the program! And that's not all! He actually SAW the results his peers were talking about!

Well, needless to say, Elvin caught the spirit and started walking. It was very difficult for him at first, but he started slowly, and, with determination, built himself up gradually. After a few months, he had improved his health and strength, and his attitude so much that he was discharged from the Nursing Home, and went home to take care of his wife!

Louie, who has a lot of nervous energy, and spent it making everybody else nervous, is now heading the Physical Fitness Program at Alpine Valley. He walks up and down the halls nearly all day long. He's much happier now, and so is everybody else!

Afton, a sweet, dainty little old lady, at Cove Point, who has had a hip replacement and much pain the last few years, started participating with the program. She says, "I just grit my teeth and bear it!" It has been very difficult for her to keep going, but she has persisted faithfully until she finally attained First Place! It is fun to see a sweet little old lady taking First Place in Physical Fitness! But, old age is unpredictable. Sometimes she has set backs and earns "only" a Blue Ribbon. Participants need to realize that if they are sincerely trying, and doing their best, they can be very proud of whatever award they receive, even if it is "only" a White Ribbon. What really counts is that they are bettering their own condition.

Lee, a very weak lady with conjestive heart failure, has a renewed outlook on life. She had been very discouraged because all she could do was take care of herself, and she said she wasn't even doing that very well! When she found out that she could get credit for anything she did that promoted deep breathing (as stated on the PHYSICAL FITNESS CHART), she started keeping track of these things. Lee was pleasantly surprised to discover that she was indeed exercising much more than she had realized! Now, instead of feeling like all she could do was to take care of herself, she is proud of her accomplishments because of all the exercise she is doing! (She gets credit for having a bath, getting dressed, making her bed, straightening her house, etc.)

SOME CAUTIONS:

Most participants need to be encouraged to try hard and increase whatever exercising they are doing to begin with. But we must caution them to make sure that their doctor approves first.

A good guide line to remind them is that while they are exercising, if they can carry on a conversation, they are probably not overdoing themselves. (This information is also on the PHYSICAL FITNESS CHART.)

It is extremely important, for a successful Physical Fitness Program like this, to be consistant, and to follow through.

SUMMARY:

Any program that encourages the elderly to participate in bettering themselves physically, is invaluable. Generally, old age is probably the most difficult time in a persons life. And getting physically fit is an excellent way to make old age not seem so old!

NAME _____

Golden Living Physical Fitness Program

To accumulate points toward your Golden Living Physical Fitness Awards, mark a slash ☒ for each 10 minutes of exercise you do. When you've exercised 20 mins. put a slash ☒ the other way, completing the box with an ☒. We encourage you to participate in your selected activities (approved by your physician) at least three times per week. Activity should promote deep breathing, but not be so intense that a person cannot carry on a conversation. At the end of each month, turn in the number of hours you have earned, to the Recreation Director. Awards will be given on the second Tuesday of every month at 1:30 P.M.

MONTH _____ MONTH _____ MONTH _____

BLUE RIBBON

RED RIBBON

WHITE RIBBON

10 MINUTES= ☒

MONTH _____ MONTH _____ MONTH _____

BLUE RIBBON

RED RIBBON

WHITE RIBBON

20 MINUTES= ☒

Utah Governor's Council on Health and Fitness

Fitness - it has gone from fad to fact. But until every Utahn enjoys a healthy lifestyle, the members of the Utah Governor's Council on Health and Fitness will continue to advocate regular exercise and good health attitudes and behaviors. The Council members consist of 33 volunteers - professionals, community leaders and private citizens - who encourage each individual to assume more responsibility for their own health. Fitness is for everyone!

One of the projects of the Council has been the Governor's Fit Tips", which are 30-second radio spots aired several times a day on KSL Radio. The fit tips are written by Council members and deal with such topics as exercise, athletic injuries, exercise equipment, weight control, stress management, nutrition and emotional well being. The purpose of the fit tips is to sensitize the public to healthy lifestyle choices. If you tuned in to KSL, you may hear any one of the following fit tips:

Health Tip: 30

All of us, like the "Tin Man", want a good heart. No need to go "off to see the wizard." Refinements in the science of monitoring the heart have shown that exercise makes your heart grow stronger. A strong heart is good because it means you are pumping large amounts of blood with each heart beat.

Not only does an exercised heart work better during periods of increased stress, it will also work better during rest by moving more blood with less work. Who knows, it may even help prevent rust! Give yourself more heart!

A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

As runners, we are aware of shoe protection and function. One important area of having an advantageous running shoe is proper fit, both in the heel which sould be firm and snug, and in the arch area, leaving a thumb width from the end of your largest toe to the end of the shoe. Running shoes must remain in good repair to do their job. When the shoe begins to roll in, then it should be replaced because this creates considerable increased stress for the runner. This has been a fit tip from the Governor's Council on Health and Fitness.

Health Tip: 30

"Shin Splints" is a catch-all term that has been used to indicate pain in the lower leg during activity. True shin splints, however, consist of inflammation of certain muscle attachments along the outer front edge of the shin or along the inside of your lower leg and ankle. This problem is often seen in beginning athletes, people with structural problems like flat feet, and is associated with changes in training such as running hills. Relief is prompt with the proper combination of rest and support.

A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

The Governor's Council on Health and Fitness sponsors the Utah Senior's Physical Fitness Awards program for citizens over 55 years of age. If you are interested in such a program, why not write for a brochure which explains how to start earning a bronze, silver or gold award signed by Governor Scott M. Matheson, you earn one point for every fifteen minutes of sustained vigorous activity - square dancing, walking and gardening all qualify. Write to the Governor's Council, P.O. Box 2500, Salt Lake City, UT 84110-2500, for your free brochure.

Fit Tip: 30

What is "spot reducing?" The term refers to exercises for specific areas of the body such as hips, thighs, upper arms, waist, etc. Actually - "spot reducing" is a misconception. One cannot "reduce" spots of fat on the body by a series of repetitions on that body part. Rather, the fat belongs to the entire body and will decrease only by following a fitness program at the proper heart rate. However, these "isolation" exercises can help to firm and tone muscles. A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

Dr. Charles A. Berry, Former Chief Medical Director of the U.S. Space Program has said: "We don't have all the facts on how risk factors affect people. There is no absolute certainty that the presence of risk factors will bring on disease; and there's no guarantee that their absence will prevent disease. But then, we didn't have all the facts when we went to the moon either. There is plenty of evidence to show that what we do to and for ourselves greatly affects our chances to live a long & healthy life here on earth." A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

During a lifetime of approximately 70 years you will consume 35 tons of food! This is the equivalent of 16,000 bricks, enough to build two three bedroom duplexes. Dieting, or eating less, is one of two ways to lose weight. The other is to eat the same number of calories but to get more exercise. The most efficient way of losing weight would be a combination of both methods. Whatever method you choose, remember, it's a matter of balance; calorie intake versus energy output. A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

What are the most reliable symptoms of high blood pressure? There are none! This is why high-blood pressure is commonly referred to as the "silent disease." People often mistakingly think that high blood pressure has such symptoms as headaches, dizziness or anxiety. But how you "feel" is not a reliable way to tell if your blood pressure is high. Don't take chances. Have your blood pressure checked regularly and if you do have high blood pressure don't give up on keeping it down! Treat it for life! A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

According to Dr. Leonard Syme at the University of California, "disease rates are increased when ties among people are less frequent." What it boils down to is ... we need each other! Don't be afraid to ask others to support you. Talk things over with family and friends. Remember, being actively involved with others leaves you less time to dwell on your own problems. Send flowers to your greatest supporter, a funny card to your exercise companion, give your kid a hug! Seek a friend - and - be a friend. A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

The "runner's high?" is one of the many effects of aerobic exercise. Exercise may also serve as a sleeping pill, a diet pill, a tranquilizer or an antidepresessant pill. Exercise may also lower blood pressure.

When it is safe for you to engage in aerobic exercise, you can provide these benefits to yourself without the expense of seeing your doctor. PLUS you will have the satisfaction of greater self reliance. So become your own "pill pusher" - minus the pills! A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

A story is told about the attempt of the Green Bay Packers to enlist in the service in 1941. Some team members were rejected because they were "overweight". Many people do not understand the difference between "overweight" and "obesity". One might weigh 20 pounds over some arbitrary weight standard and yet have a low percent body fat. However it is possible to weigh the "correct" amount and yet be overweight. So think fitness, not thinness. A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

The phrase"aerobic exercise" requires definition. This refers to exercise that is done continuously for at least 20 minutes, 3-4 times each week using large muscles in a rhythmic manner. Exercise should not be so intense as to prevent easy conversation. Many beginners exercise too hard and end up with sore muscles; they then get discouraged and quit for the wrong reasons. So be sure you are exercising at the right level for you. A tip from the Governor's Council on Health and Fitness.

Fit Tip: 30

The "set point" theory of body weight suggests that we all have an internal "thermostate" that regulates a body weight at which we are most comfortable. Dieting does not chance this set point. We usually are miserable while dieting and eventually end up right back where we were at a weight that satisfies us physiologically, if not psychological. However, we can lower our set point with regular aerobic exercise. We will then remain comfortably at a lower body weight without dieting constantly. A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

Exercise, when performed a the proper training heart rate, has many benefits. It may act as a tranquilizer, an appetite suppressant, a sleeping pill, or an antidepressant. Vigorous exercise may help prevent heart attacks and instills a feeling of well being, plus enhances creativity. Exercise has helped people with diabetes, ulcers, nervous tension, back pain, vericose veins, recurring headaches, and insomnia. A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

How many cigarettes have your children smoked today? When children breath air filled with cigarette smoke, it can be as bad as if they had actually smoked the cigarette themselves. Smoking parents affect the well being of the children. Children of smokers have an increased incidence of respiratory illnesses. Therefore, the Governor's Council encourages you not to smoke when there are children present. Make your life, and theirs healthier. Don't smoke! A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

Cigarette smoking is the largest preventable cause of illness and premature death in the United States. It contributes to heart disease, lung cancer, bronchitis and emphysema. Women who smoke have an increased risk of miscarriages, premature babies, or the chance of giving birth to low-weight babies. Smoking is an expensive and destructive habit. If you now smoke - quit - and add years to your life. A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

Are you tired of your smoker's cough and the money it costs to buy cigarettes? If you wnat to quit - throw out your cigarettes and substitute exercise for smoking. Keep celery sticks or sugarless gum handy for when you crave a cigarette. Announce to your family and friends that your're giving up the habit - and ask for their support. Open a special savings account and save the money you once spent on cigarettes. You'll soon be a non smoker. Congratulations from the Governor's Council on Health and Fitness.

Fit Tip: 30

Nutrient Density refers to the number of essential nutrients and the amount of each in a specified amount of a foodstuff. One hundred calories of white sugar, for example, contains no nutrients. One hundred calories of milk, on the other hand, contains significant quanitites of at least 21 nutrients. Adequate nutrition requires both an adequate number of calories for energy and the RDA's for 46 nutrients. Thus, it is important to know and to eat nutrient-dense foods. A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

One-a-day nutrient supplements may contain vitamins, mineral elements or both. They are popular because many people believe that if their diet is inadequate in nutrients, a supplement will make it up. This assumption is dangerous. The public should know that no supplement yet available contains all 46 known essential nutrients. Nutritionists suggest that the best way to obtain all the essential nutrients is by eating nutrient-rich foods. A tip from the Governor's Council on Health and Fitness.

Fit Tip: 30

Cutting down on salt won't hurt you. In fact it may help keep your blood pressure down. Besides, most of us consume too much salt. We get sodium in many other ways. For example:

- In snack foods
- In processed foods
- In restaurant foods
- And in some medicines

Eating more potassium-rich foods, like whole-grain cereals, fruits, and fresh, green leafy vegetables; and less sodium-rich foods, like meats, dairy products, and salted junk foods is a better choice for your body. A tip from the Utah Governor's Council on Health and Fitness.

Fit Tip: 30

High Blood Pressure is a condition in which a person's blood pressure goes too high and stays there. This condition is dangerous because it could lead to a hear attack, stroke or kidney failure. High blood pressure is especially dangerous because it has no clear signs. A person can have it and not even know it. It doesn't hurt, and it usually doesn't make a person feel sick, dizzy, or nervous. So have your blood pressure checked regularly, and if it is high, follow the treatment prescribed by your doctor. A tip from the Utah Governor's Council on Health and Fitness.

Health Tip: 30

Jogging is not really a seasonal activity—it can be enjoyed anytime of year. According to Dr. Kenneth Cooper, noted researcher, the ideal exercise weather is 40° to 85° fahrenheit with the humidity less than 60% and the wind velocity less than 15 MPH. Cold weather actually poses fewer problems for runners than hot weather. The main hazard for winter joggers is slippery footing. When it's cold, be sure to cover your head and extremities, and dress in several light layers of clothing. When it is excessively hot or humid, run at a slower pace or shorter distance, and drink plenty of fluids. A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

One of the myths about exercise is that the older you are, the less exercise you need. Actually we tend to become less physically active as we get older, so we often need to pay more attention to the amount of exercise we're getting. Middle aged and older people benefit from regular exercise just as younger people do. Age need not be a limitation. What is important, however, is to tailor your exercise program to your own level of fitness. A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

It's interesting that many victims of "middle-age spread" or "pot belly" may turn to situps (a non-aerobic exercise) to get rid of their "pot". Even though this accumulation of abdominal fat is part of a reservoir of fat that belongs to the whole body and not just the stomach, many think that exercising the muscles underneath all that fat — that's the abdominal muscles — will somehow make the "pot" disappear. Situps will help tone these abdominal muscles, but continuous rhythmic (aerobic) exercise is needed to lower body fat—including that "pot". A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

Exercise cannot prevent aging but it can stop or reverse much of the deterioration that is a part of aging..a condition which is strikingly similar to the deterioration that follows inactivity at any age. Exercise is simple, cheap, and effective and by adding oxygen to the brain can keep it active and useful. It also adds to muscular and skeletal strength and from a cardiac point of view is a many years offset to aging.

A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

How you deal with stress can affect your physical health. Some stress is normal but too much can lead to depressionand poor health. To avoid depression: Stay physically and mentally active. Pursue enjoyable activities. Build on your strengths. Develop new interests. Make new friends. Keep things in perspective. If depression lingers, get professional help.

A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

Good health in later years shouldn't be left to chance. Aging doesn't have to mean illness or a severely limited life. If you know what to do, most physical changes can be slowed down or dealt with. Staying healthy depends a lot on you! It means: getting proper medical care; exercising and eating right; eliminating bad habits and maintaining a positive outlook. It's best to start taking care of your health when you're young. It's never too late to start.

A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

Although very little research has been done in this area, some data indicate that low-intensity exercise may be preferable to high-intensity exercise for losing weight. Apparently the low-intensity exercise stimulates the enzymes of fat metabolism more effectively. A biochemist states that if he were overfat, he would walk for at least one hour twice a day. He would not begin jogging until much of the fat was gone and he was sure that the biochemical changes for using fat had occurred. A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

Perhaps the easiest way to tell if you are exercising at the proper intensity is the "talk test". You should always exercise with enough intensity to increase the depth and frequency of your breathing, but you should <u>not</u> exercise so intensely that you cannot carry on a conversation. Exercise within these general guidelines will usually be safe and allow you to work long enough to be effective. However, work that makes <u>you</u> breathless might not affect someone in better condition. Therefore because you need to meet your own fitness level, you may not be able to exercise with someone else. A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

Another excellent way to assess whether you are overweight is to compare the skin fold thickness on the back of your hand with a similar thickness on the back of your upper arm, your hip, neck, or thigh. There is almost no subcutaneous fat on the back of your hand, so any difference you feel at the other sites is fat. Any pinches over an inch indicate overfat conditions. Check your body fat with this pinch test and let it be your personal incentive to make exercise a part of your daily life — the results are the reward! A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

No joke: Laughter is good therapy for your health because it is such an effective stress reducer. Physicians have reported that all healthy elderly patients seemed to have one thing in common, a good sense of humor. In a surprising number of instances, patients have laughed themselves back to health, or at least have used their sense of humor as a very positive adaptive response to their illness. Increase your own supply of this wonder drug for a way to better health.

A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

Sometimes being calorie-wise can be pound foolish. You've seen how often people who are on diets skip breakfast only to overeat at other meals because they are so hungry. So how many calories do you need for breakfast if you're dieting.

Moderation is usually best in all cases, particularly when you're on a diet. Eat breakfasts that match your lifestyle, keeping in mind that a nutritious breakfast will keep you at peak efficiency all morning.

A tip from the Governor's Council on Health and Fitness.

Health Tip: 30

Today with thirty million children overweight or underconditioned, Americans can no longer take it for granted that their children are physically fit. Out-of-shape children face the same problems as adults, including a greater risk of degenerative diseases. Experts recommend that children do a variety of exercises for brief periods every day, the goal being to keep them always challenged.

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Health Tip: 30

Dr. Dale O. Nelson, a member of the Governor's Council on Health and Fitness and an exercise scientist at Utah State University, advises you to put some space around your life, both physical and psychological. Take time out to do things--read, walk, play, listen to good music, hike, swim, meditate, or whatever. "Break out of the circle."

The "time out" effect in a well structured physical activity program is often more important than the physical benefits. "Stress" and lack of private "rejuvenation" time can kill as surely as smoking, poor nutrition, and other detrimental lifestyle practices.

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Health Tip: 30

Do you suffer from arthritis? Mild to moderate levels of exercise can be an excellent treatment for arthritis, one of the most common diseases of aging. Many studies have shown that regular exercise reduces the swelling and inflammation associated with this disease. And just as important, it diminishes the pain in the involved joints. First consult your doctor, then begin your exercise program by walking---perhaps only a few yards at first. You will soon notice the beneficial effects of regular exercise.

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Health Tip: 30

If you, or a member of your family is on a no-sugar or low sugar diet, be sure to read all labels. Sugar may be listed by numerous names, sucrose, glucose, fructose, corn syrups, corn sweetners, and others. If any cookbooks claim that no sugar is used, beware! Many times these receipes rely almost 100% on honey. There are essentially no nutritional qualities distinguishing honey from white or brown sugar. Some foods fairly high in sugar content are soft drinks, catsup, cereals, fruit yogurt and jello.

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Health Tip: 30

If you have an aging loved one living at home who has no appetite, these few suggestions that might help the problem: Taste buds decrease with age so small portions of food are more appealing. Do not allow sweet caloric snacks between meals, although a cup of bouillon or fruit juice is fine. In fact such foods are taste tinglers and could increase the appetite. Have regular mealtimes; try to work on light exercise to stimulate the appetite.

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